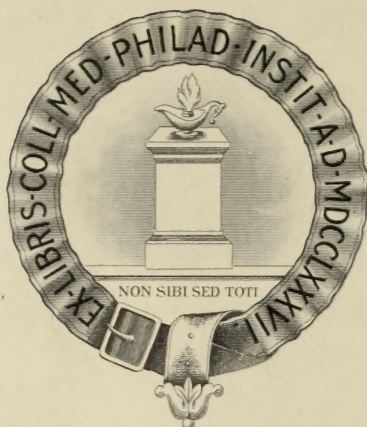


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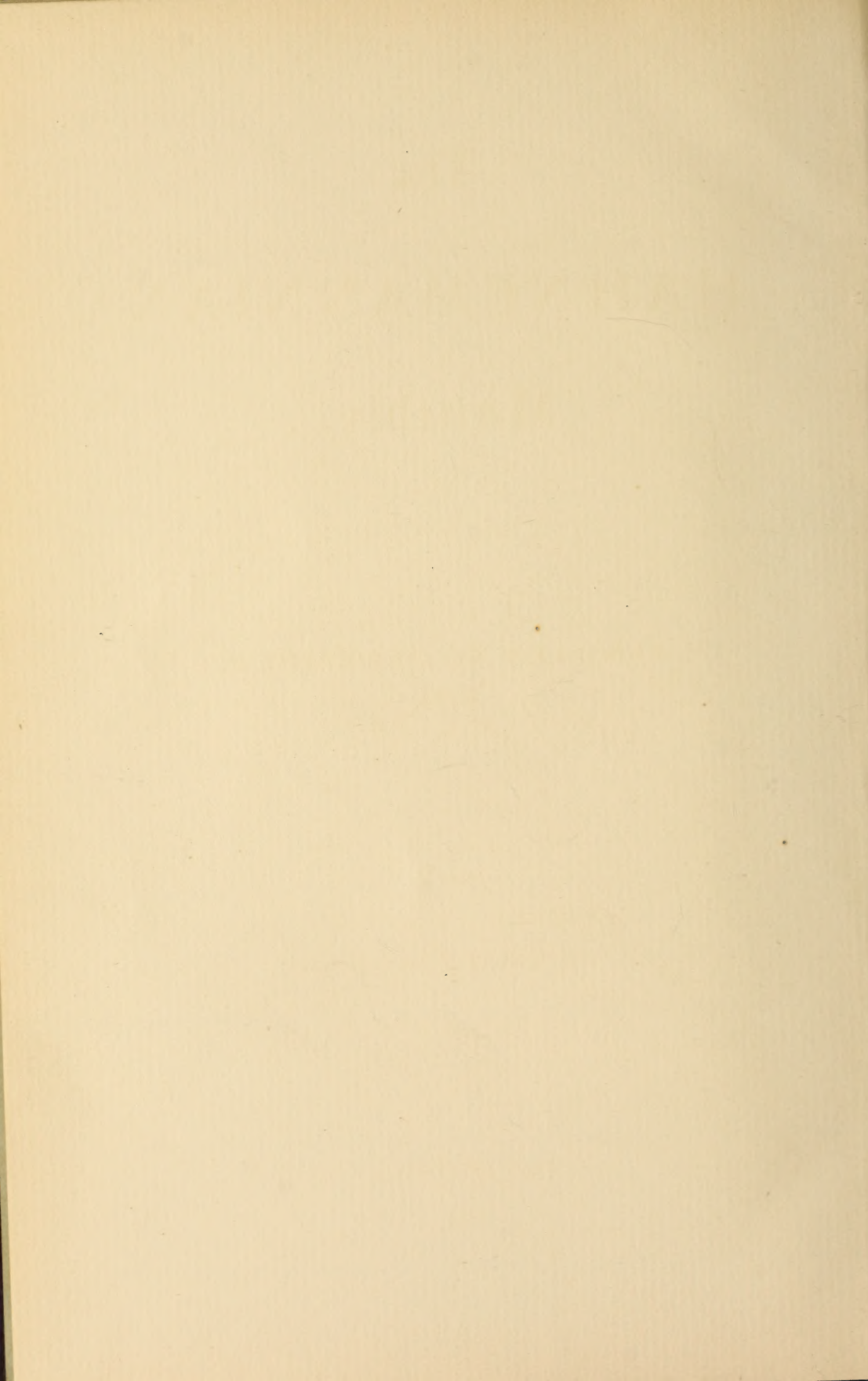


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BUREAU OF OPHTHALMOLOGY

BEZOLD'S MASTOIDITIS: A SERIES OF CASES.

BY

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THE condition which we will consider is not only an exceedingly interesting one but also one giving a typical picture. Cases of this sort were recorded as early as 1847 by Kuh, and 1873 by Boecke. In 1878 Schwartz, writing concerning perforations of the mastoid process, says: "Less commonly, perforation may occur through the lower portion of the mastoid, when the pus may gravitate into the neck and lie quite deep and may extend even to the median line to the occiput or following the course of the deep fascia may even reach the pleura." It was, however, not until 1881 that the condition, as to the reason of its occurrence, was thoroughly explained, when F. Bezold, in a most interesting article, drew an exact picture of the condition, explaining its occurrence and proving the correctness of his statements by citing the results of experiments conducted by him upon the cadaver. The deductions drawn by him, from his clinical experience and from his experiments, have been abundantly proven by cases recorded since that time. As he was the first one to accurately and scientifically describe the condition, the name of Bezold's ab-

scuss, or Bezold's mastoiditis, has been applied to the condition.

In an article published by Bezold in 1873 he considers the perforations of the mastoid occurring through the outer plate and those occurring through the inner plate. In his article of 1881 he points to a perforation of the inner surface of the mastoid tip as the cause of Bezold's abscess, and gives anatomical reasons for its occurrence.

Briefly stated, the main points of his article are these: The condition begins with an acute suppurative otitis media. In the course of days or weeks there occurs increased pain. This, either with perforation and slight or profuse otorrhoea, or there may be no perforation. There is present in many cases an inflammatory process of the upper posterior wall of the external auditory canal. Eventually the pain locates itself in the mastoid process, which is markedly sensitive. After a varying period of time there appears, in the region of the mastoid tip, swelling and pain with sensitiveness. The muscles over the tip appear raised and the outline of the tip is lost. The swelling then increases anteriorly, gradually filling the retro-maxillary fossa. There is no fluctuation. At this stage the pus may break into the external auditory canal. If the swelling progresses, it can reach downward between the posterior border of the sterno mastoid and the anterior border of the trapezius, where we can have indistinct fluctuation. Above, it extends to the superior curved line and downward, deep under the neck muscles, to the upper dorsal vertebrae. Having thus clinically described the condition, he then gives the anatomical reasons for its occurrence and explains why the pus tends to burrow deeply; why it cannot reach above the tip of the mastoid and base of the cranium and why it does not reach the exterior of the neck. His reasons are these: the outer surface of the posterior portion of the mastoid tip is entirely covered by dense tendinous muscular attachments which make it difficult for pus to break through at this point. The inner surface of the tip is smooth and the bony wall often exceedingly thin and there are in the tip, especially in adults and older people, large cells, so that pus, gravitating to these cells, can readily perforate through the inner surface of the tip. The tendons of the tip muscles spreading backward join with the trapezius and are firmly attached along the superior curved line, so that it is impossible for pus to spread above the tip or base of the cranium. Below the tip, in the digastric fossa, is the belly of the digas-

tric muscle, the occipital artery running along the inner surface of this. Surrounding the entire neck is the superficial fascia; this forms the sheaths for the trapezius and sterno mastoid muscle. The deep fascia passes down from the sheath of the sterno mastoid, giving sheaths to the large vessels, and forms a firm union with the transverse processes of the spinal column; then, passing over the vertebræ, joins with the fascia of the other side. The digastric muscle perforates this deep plate. Understanding the arrangement of the deep fascia of the neck muscles and of the digastric muscle, we can understand that pus entering the digastric fossa can, by following the digastric muscle, reach anteriorly in the neck. At this point the pus is prohibited from going to the exterior by the dense fibrous attachment between the parotid gland and the tip muscles and so is forced deep under the neck muscles. Posteriorly, the pus passing from the digastric fossa, under the muscles, is limited above, as before stated, by the muscular attachment at the superior curved line and in the median line, posteriorly, by the ligamentum nuchæ.

In conducting his experiments, Bezold, after boring a hole on the inner surface of the tip, injected a colored gelatin solution and found a condition to develop, as has been described. The solution, following the digastric muscle anteriorly, caused a swelling under the mastoid tip, filled the retro-maxillary fossa and spread to the neighborhood of the jaw. Posteriorly a diffuse broad swelling was formed as far as the median line. The swelling anteriorly was limited to the upper part of the neck. Posteriorly there were three successive layers: first, between the trapezius and splenius; second, between the splenius and the complexus magnus; third, between this and the short neck muscles. Posteriorly in the median line the swelling stopped at the ligamentum nuchæ and extended down to the second dorsal vertebræ.

Bezold further states that we may find this form of perforation of the mastoid occurring combined with the other forms; in other words, we may have a Bezold abscess presenting also swelling over the entire mastoid, due to perforation of the outer plate (this outer plate in a typical Bezold remains unchanged), or occurring with sinus thrombosis, peri-sinus abscess, etc.; due to perforation of the inner plate. He also states that, in a small percentage of the cases, the pus may break through into the external auditory canal at the junction

of the cartilaginous and bony portions. That in some cases there may be pyaemic symptoms; that the pus burrowing along the spine may cause necrosis and that above it may cause necrosis of the cranium.

In the next few years, following Bezold's writings, a number of exceedingly interesting and, in some instances, exceedingly severe cases were recorded. In recent years cases of deep extension have been rare, for the condition has been well understood and early operated.

In 1903 F. Leimer considered in detail and described fully a series of cases which had been operated in Bezold's clinic. (We are indebted to this article for many of our literature references.) As his findings in this series were most interesting, we will review them briefly. Between the years 1892 and 1901 there were 97 cases of complications occurring from acute suppurative otitis media. Of these seventeen were cases of Bezold's abscess, or 17.5 per cent. of the cases (Leimer states that Gradinigo found a similar percentage). Fourteen of the cases were men, three were women. Of the other operated cases fifty-one were men and twenty-nine women. The youngest patient was fifteen years old, the oldest seventy-two, most of the cases being between twenty-one and fifty years. The reason for the greater number of cases in adults he found to be large tip cells and thin inner surface of mastoid tip, as stated by Bezold.

The abscesses occurred from one week to seven months after the acute attack. The majority of the cases showed no swelling over the mastoid but there was tenderness. The swelling was in the typical position and in extreme cases extended to the upper dorsal vertebrae. In four cases the abscess was combined with sub-periosteal abscess over the mastoid. In five cases there never had been any otorrhoea and the drum was intact. In one case perforation occurred through the external canal. In all cases there was perforation of the drum; in six, the external canal was sunken and narrowed. The general symptoms were mostly headache, pain behind and under the ear with tenderness over the mastoid; in some cases slight temperature changes with chilliness, in others chills and temperature of pyaemic character. In four cases the patient held the head stiffly toward the affected side.

Operative findings: In twelve cases the outer surface of the mastoid was unchanged; in four cases there were openings in

the outer surface. In all cases the outer layer was compact, while the under portion of the tip was thin and brittle. In fourteen cases there were very large cells in the tip. In thirteen cases the contents of the mastoid were pus and granulations. In three long standing cases there were only granulations, and in two cases (those occurring in five and seven days) there were no granulations. The lateral sinus was found exposed six times. In one of these there were marked pyaemic symptoms pointing to the sinus condition.

While it has been impossible for us to completely cover the literature of Bezold's abscess, we have read the records of a large number of reported cases and found these in the main to agree with the findings of Bezold and Leimer. The vast majority of these cases occurred within a few weeks following the acute attack. (Hedinger records a case in a patient with a otorrhoea of ten years' standing.) Most of the patients were adults, many of these well advanced in years. (Muck records two cases at six years of age.)

The condition occurred mostly in men. In by far the greatest percentage of cases there was no swelling over the mastoid. The condition was frequently found combined with other conditions. (Hedinger, Knapp, Hegetschweiler and Voille.)

The drum was intact in some cases (Knapp, Lichtwitz, Knapp, Sheppard, Leimer).

Peforation occurred through the posterior wall in a small percentage of cases (Hegetschweiler, Leimer, Kirchner). Muck cites a case of bilateral perforation.

Sinking of the posterior wall of the canal was not a constant condition (cases in which this occurred are cited by Knapp, Moos, Kirchner, Hegetschweiler, Sheppard, Joel, Leimer). We have found this swelling of the canal to be more in the central and outer portion of the external canal.

Tendency to hold the head toward the diseased side was only infrequently recorded.

Thrombosis of the lateral sinus, brain abscess and meningitis occurring with Bezold's abscess are recorded (Moos, Knapp, Brieger, Leimer, Joel).

Retro-pharyngeal abscess occurs in a very small percentage of cases (Guye, Kisselbach, Kirschner).

Exceedingly severe cases extending to the occiput and causing caries of the cranium (Panzer and Kirschner); extending to the clavicle (Reinhart, Zaufall) and extending along the

spinal column are recorded (*Gruber* and *Knapp*). *Politzer* cites a case causing luxation of the vertebrae and death.

A few series of cases are recorded in addition to *Leimer's*. *Hartman* found four in thirty cases; *Hammond* twelve in a hundred and three cases; *Sheppard* three in one hundred and three cases; *Blake* three in twenty-five; *Green* sixteen in eighty cases; *Piff* nine in seventy-five. You thus see the percentage for these various series is about 12.4 per cent.

The anatomical findings of the vast majority of all operators were in accordance with the findings of *Bezold*, as have been the findings of many who have made a close study of the mastoid tip. (*Kanasugi*, *Hyrtl*, *Kesselbach*, *Zuckerkan*dl, *Cruvicilheir*, *Schwartz*e, *Kärner*.)

Since January, 1909, we have had under our personal care eight cases of *Bezold's* mastoiditis. The condensed reports of these cases follow:

CASE I. *Thomas M.*; age 32; Jan. 18, 1909. In June, 1908, attack of acute otitis media in the right ear, with discharge of greenish pus. This ceased in two weeks and had no further trouble until five weeks ago, when a hard sensitive swelling appeared posterior and below the ear. He consulted a physician who incised the swelling. There was no pain with this swelling. At the time this appeared there also developed some dullness of hearing. Since the incision there has been constant discharge from this point in the neck. Three days ago discharge from the right ear without any pain. Status: Canal filled with thick, greenish, muco-purulent discharge and epithelial debris. Posterior wall sunken to a marked degree almost occluding the lumen. It was impossible to see the drum but a perforation sound was obtained by inflation. Along the anterior border of the sterno-mastoid muscle, about one inch below the tip, an open wound three quarters of an inch long from which greenish pus flowed. From this a sinus led upward to the tip of the mastoid process.

Patient admitted to the hospital January 19th and kept under observation until January 28th. For a few days ran a low temperature (99.4 F.) but complained of nothing else. He was operated January 28th. The lateral sinus was found widely exposed and covered with granulations. There were large tip cells filled with pus and a defect in the mastoid tip; a probe passed through this followed a fistulous tract and appeared at the incision in the neck.

CASE 2. Henry M.; age 22 years; March 16, 1909. Six days ago had la grippe. Five days ago pain in right ear. Two days ago discharge started, but there has been no let up in pain, which he refers to the mastoid region.

Status: Muco-purulent discharge, posterior wall sagging being especially marked at the central portion. A hemorrhagic bleb close to the drum. Marked tenderness over the antrum and especially at the anterior portion of the mastoid tip. At this point there is slight oedema. Temperature 100.4 F. Pulse 90. Patient was put to bed, drum freely incised and ice bag applied. That evening pain having increased, leeches were applied with marked relief for a few days. On the 27th, sudden pain in the region of the tip, followed by swelling anterior to the tip and in the parotid region. This was not great and by the next day had disappeared although the tenderness at the tip still continued. March 28th operation. Entire mastoid was normal except at the tip, where one large cell was found, which was broken down and perforated on the inner surface.

CASE 3. John P. K.; 38 years; June 4, 1909; no previous ear disease. On May 25th, severe pain referred to region of the left Eustachian tube. Two days later his physician removed a large amount of wax from the left ear. Pain continued and ear started to discharge. Pain continuous since that time but not so severe and has changed in character from a sharp lancinating pain, to one of a dull throbbing character. Yesterday stiffness of the left side of the neck with hard, brawny swelling; he has felt feverish and chilly two or three times with slight sweating. Loose bowel movements three times during the morning. Status: Left ear profuse muco-purulent discharge. Posterior wall of external canal pinkish in color and sinking. Small perforation in the posterior inferior portion of the drum. Pulsation of the entire drum. Extreme sensitiveness of the entire canal and membrane. Entire mastoid markedly tender. Hard, brawny swelling extending from the mastoid tip to the parotid region. Can detect no fluctuation. Sterno-mastoid muscle sensitive and pushed outward by swelling. Temperature 101, pulse 80. Operated June 5th. In this case also tip cells were found necrotic filled with granulations and perforation on the inner surface led into the neck. The fistulous tract was followed. The entire tip was removed. The abscess cavity drained from above.

CASE 4. Norman C. B.; age 28; Sept. 21, 1909. As child

was subject to earache but no ear trouble since then until three weeks ago, when following a cold, pain developed in the left ear. This lasted four days when discharge occurred with relief of pain. This discharge has been profuse from the start. No mastoid symptoms until two days ago when swelling and tenderness, with redness, developed over the tip of the mastoid. Status: Profuse muco-purulent discharge; marked general mastoid tenderness with some post auricular oedema. Hard, brawny swelling in the parotid region but not sensitive at this point. Temperature 100.2, pulse 120. Patient feels slightly chilly. Sagging of posterior wall extending along the entire wall. Operation was advised and performed the same afternoon. Considerable pus found in the tip cells and two perforations through the inner surface. Next day the pus in the neck had extended along the anterior border of the sterno mastoid. Counter incision was made at the lowest point. The pus in this case was extremely foul smelling. The patient was septic for a few days. He was discharged from the hospital October 10th. On October 19th he developed pain about an inch posterior to the mastoid and rough bone was found at this point. On October 21st was again admitted to the hospital and operated. There was found extensive superficial necrosis of the outer plate backwards in the parietal and occipital regions. This was carefully curetted.

CASE 5. John M.; age 35 years; Sept. 28, 1909. One month ago, after an exposure in a refrigerator room, developed pain in the left ear. This lasted three days, being followed by discharge lasting two weeks, this then ceasing to appear at irregular intervals. When the pain started, a lump appeared behind the ear which gradually increased in size and eventually spread into the neck. The condition at first was very painful but at present is not bothering him. He complains of nothing but slight feverishness. Status: Patient dull, apathetic; answers questions intelligently but slowly. Large, brawny swelling in the neck, extending from just above the tip of the mastoid to a point about four inches down the neck, in the course of the sterno mastoid muscle, the latter appearing to be raised. The swelling is extremely hard. There is no fluctuation at this point. Tenderness only over the antrum and tip, none in the swelling. Prominence of the left auricle. Distinct sagging of the posterior wall. Impossible to see drum. Some pus in the canal. Temperature 100, pulse 110. Patient admitted to the

hospital and operated September 29th. Tissues over the mastoid markedly infiltrated. Defect in outer plate low down posteriorly in the tip. Antrum opened with flow of pus. Cortex very thick, little cellular structure above. Mastoid tip very cellular filled with necrosed bone granulations and pus. Perforation through the inner surface of the tip and a sinus extending from this down the neck beneath the sterno mastoid muscle. Counter opening made.

CASE 6. Helen M.; 4 years; January 17, 1910. No aural history until December, 1908, when, following a cold, there occurred pain in the right ear followed by discharge. This cleared up in one month's time. Twenty months ago scarlet fever; following this, suppuration of the cervical lymphatics of the left side of the neck; this cleared up; no further trouble until one year later when, during measles, the old condition of the lymphatics in the left side of the neck recurred. This was incised but did not heal until four months ago. One week ago severe pain in the left ear. Child seemed delirious. This continued for two days when mother noticed swelling back of the ear and marked tenderness. Discharge now occurred but brought no relief. We saw the case on January 17th, and found it as follows: child appears dull, septic. Left auricle very prominent; marked swelling over the entire mastoid extending down into the tissues of the neck. There is fluctuation upon palpation of the swelling above, but none upon palpation of the swelling in the neck. Temperature 103.3, pulse 130, child has passed only about six ounces of red urine during the last thirty-six hours. Case was taken to the hospital and immediately operated. There was found a perforation of the outer plate midway between the antrum and the tip and a second perforation through the inner surface of the tip. This mastoid showed a most unusual development for a child of four years.

CASE 7. Mrs. Matilda D.; age 41 years; May 5, 1910. Ear-ache as child. Had measles and scarlet fever, but no ear trouble. Five weeks ago cold in the head, followed by severe pain in the right ear and two days later in the other ear. Pain lasted three weeks, when discharge appeared from the right ear. This stopped and a few days later she noticed a swelling back of the right ear, which has continued. The pain was referred to the mastoid and the right side of the head. Felt chilly last night. Status: Right auricle prominent, swelling

posterior to auricle, slightly above and over the antrum. This is very hard, can detect no fluctuation. External canal sinking especially externally, this sloping in toward the drum. Temperature 98.4, pulse 80. Advised operation, but did not see patient again until May 9th. The ear was discharging freely, there was less post auricular swelling but diffuse boggiess over the mastoid. Tenderness over the entire antrum and the canal closed by swelling. Temperature 98.2, pulse 88. Patient refused operation until May 16th, although she had run a septic temperature for several days. Just prior to operation there was no pain but patient had lost appetite and was feeling miserable. Marked increase in oedema with point of tenderness slightly below the antrum. A distinct swelling in the neck below the tip and beneath the sterno mastoid muscle. No tenderness at this point. External canal completely occluded. Perichondritis of the auricle. At the operation there was found fistula just below antrum, surrounding bone necrotic, antrum filled with granulations and pus, large exposure of the sinus which was covered with granulations and sealed to the surrounding healthy bone. A large defect on the inner surface of the tip and a fistulous tract beneath the sterno mastoid muscle. This case ran a very septic course and there was a profuse flow of pus from the counter opening for some days.

CASE 8. Physician; age 47 years; March 7, 1910. No previous ear trouble. Three weeks ago pain in left ear. In six hours discharge, is still continuing, especially in the temporal region with tenderness over the mastoid. Status: Tenderness over mastoid tip, very little over the antrum. No oedema, drum bulging and injected. Performed paracentesis with considerable relief. The discharge continuing with some slight fullness of left side of the head until May 3rd. At this time temperature 101.5, pulse 90, with marked tenderness over the tip and some stiffness of the neck. The posterior wall at its central portion was boggy. Incision of this was followed by considerable relief. Ten days later swelling occurred anterior and below the tip in the neck. Operation was advised but decided to wait twenty-four hours. A few hours later there was a sudden discharge from the external canal with great relief. The discharge was found to be coming from a perforation in the external canal at the junction of the bony and cartilaginous portion. This lasted three weeks. Since then the ear has returned to practically normal.

In our series of cases, the mastoiditis occurred mostly in adults and in males. The occurrence in case of six was due to a most unusual mastoid cellular development in a child of this age. Perforation of the drum was present in all cases, as was also sagging of the posterior wall, although this did not appear in our cases, as does the sagging with mastoiditis, close to the ear drum but more especially in the outer half.

The swelling in the neck was anterior to the sterno-mastoid muscle and beneath it. In no case was there swelling posterior to the tip. Swelling over the mastoid was only present in those cases where perforations were found in the outer plate. There was perforation through the inner surface of the tip in each case, and in one case perforation occurred through the external canal. Large cells in the tip in all cases and the inner surface of the tip was extremely thin. The lateral sinus was found exposed in two cases. One patient showed a tendency to hold the head toward the diseased side. Two cases ran markedly septic courses. One case was complicated by a hemorrhagic nephritis. All of these cases made good recoveries.

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CONGENITAL BLINDNESS: WITH A PRESENTATION OF TWO CASES IN THE SAME FAMILY.

BY

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THE cause and prevention of blindness has received much attention during the past few years, and yet the literature on congenital blindness is so meagre that but little information upon this subject could be secured.

The terms amblyopia and amaurosis are used to signify dimness of vision, the former a partial obscurity of sight, the latter a loss of vision. It is the subject of amaurosis that I wish to discuss at present. As we have two eyes we may have a blindness in but one, monocular, or both may be without sight, binocular. Monocular blindness may not be revealed for years, and then accidentally, or while searching for a cause for strabismus.

But as we are more interested at present in total blindness we will discuss the monocular form no further.

Binocular amaurosis may be manifested at first only when the child begins to walk, by his inability to avoid gross objects, although a suspicion of it may be had by the inattention of the child to objects placed before it. The cause may be an affection

of any part of the visual tract, the brain, optic nerve, retina, lens, or cornea. A malformation of the skull; an arrested or imperfect development of the brain; a prenatal affection of the optic nerve, the retina, lens or cornea may be a cause.

It may be the result of an absence of the optic nerve,—a rare condition, or an absence of the entire visual system, even of the eyeballs. Spiller reports a case where the eyeballs, optic foramen, optic nerves, chiasm, optic tracts, and external geniculate body were wanting. The patient was a helpless idiot, of twenty-two years of age, afflicted with paraplegia. (See Fox on Diseases of the Eye, p. 276.)

Amaurosis may be dependent upon hereditary influence, syphilis or tubercular disease. It may be due to misplaced maculae.

Possibly the form most frequently seen is that caused by opacity of the crystalline lens forming a zonular or lamellar cataract. This is often amenable to treatment.

The two cases before us are both girls, the only children in this family. The eyeballs appear to be perfectly formed as to component parts, cornea, lens, iris, retina, nerve, and so on. But in both the eye-balls are myopic, markedly so, a — 18 lens being needed to secure a picture of the fundus. The retina in the older child shows no change from that of a normal eyeball, but that of the younger does show pigmentary spots. As these children were before the Society at its meeting in Scranton, I can do no better to describe the condition of the one, the younger, than to quote from the Transactions of 1909, page 213, where Dr. Mackenzie describes the retina as having a granular appearance, giving an appearance like retinitis pigmentosa, a pigmentary degeneration of the retina.

Those of you who have seen Ruth, the older child, will recall her as being 3 feet $1\frac{3}{4}$ inches in height, of a moderate build, fairly well nourished, light hair, blue eyes which appear sunken, of an unusual degree of intelligence, a memory rather startling, and a fine ear for music. She was born May 29, 1907, now 3 1-3 years of age. Both parents were in their usual good health at her conception, and the period of gestation developed nothing unusual in the mother. Labor was at term, somewhat protracted, and terminated with instrumentation. The head was slightly bruised, but no serious trauma. The defect in the sight was first noticed when between four and five months of age. It was shortly after this that I was introduced to the case,

and later sent her to Dr. H. B. Ware, of Scranton, as well as Dr. Roth, in Wilkes-Barre, who confirmed my opinion of blindness with no hope of sight, and up to date there has been none discoverable.

Edythe, the younger, was born under my care, February 11, 1909, and is now 1½ years of age. Again the period of gestation developed nothing unusual, labor being at term, of a few hours' duration, unassisted and normal in every respect. We watched this child closely and early found her blind also. She seems to be more frail than her sister, and with her, had measles in a light form during the past winter. She also shows a quick ear for music, now already humming a tune well. Both children have a habit of boring their fists into the eyes. Both are conscious of sunlight, but seem unconscious of the lamp light reflected by the ophthalmoscope. The younger one seems to be the more sensitive to sunlight, shading her eyes if a bright ray is suddenly encountered.

The parents of these girls have no blood relationship to each other. The mother is now 29, always enjoyed a fair degree of health with the exception of a monthly attack of migraine. Never had any venereal disease, is of German and German-American parentage. Her family reach a ripe old age, the father dying at 73 after a prolonged prostatic trouble. The mother is still hearty at 73.

The father is now 30, always had good health. No history of venereal trouble. His father was a Welshman, the mother a Quaker of Welsh-English parentage. The father died at 71 of some heart lesion, the mother at 62 as a result of apoplexy. On the mother's side a number of close relatives have had cataracts in advanced life, and the majority die of apoplexy. No blindness is known to exist or to have existed in any of the families in the present or previous generations as far as we have been able to trace.

I have brought these children here again at the request of our worthy president, Dr. Shantz, and have gone rather deeply into the study of their cases. But I regret that I can do no more than present them for your discussion.

CORNEAL ULCERATIONS.

BY

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My principal object in selecting corneal ulcerations for my paper was to create a discussion of a subject that I have never heard discussed at a medical society meeting. Yet probably no other affection of the eye is so frequently seen by the general practitioner of medicine as ulcers of the cornea; and this is particularly a general practitioners' meeting, and not a body of specialists.

Ulcers of the cornea may be divided into the suppurative and non-suppurative varieties. It is my intention to discuss only the first, or suppurative variety of keratitis. In the child we see ulcers as the result of phlyctenulae which have ruptured. Every one present has often seen the picture of a little child who keeps in the dark and buries its head in the pillow or in the mother's lap and screams when exposed to light. This particular variety of ulceration is almost always due to a constitutional defect of some kind, giving rise to a lack of nutrition, and is found in the homes of the rich as well as in the homes of the very poor. While there is no doubt of the constitutional origin of this disease, as its subjects are often strumous and badly-nourished, yet errors of diet, unwholesome foods, and the abuse of tea and coffee, act as predisposing causes. You frequently find upon questioning the parents of these little patients that they eat sweets freely and many of them drink tea and coffee at an age when they had better be drinking a good, wholesome glass of milk.

One of the severest cases I ever treated was an inveterate eater of the ordinary breakfast foods, upon which he heaped sugar profusely. Many foreign writers, prominent among whom is Fuchs, designate this particular form of ulceration as keratitis eczematosa, and there is no doubt that the same cause is frequently acting, as causes eczema in other parts of the body. Eczematous changes in the nose, mouth and external auditory meatus, are quite common accompaniments of this disease. On the other hand, we find phlyctenular ulcerations frequently associated with tubercular manifestations in other parts of the body. Hereditary syphilis is also no doubt a factor in some cases. Phlyctenular ulcers frequently follow the

various exanthematous diseases of childhood, as measles and scarlet fever. If you will examine these cases carefully you will find rhinitis is always present. Adenoids are a frequent accompaniment, eczema of the nose and upper lip and purulent otitis media are often seen, and digestive disturbances are common. There seems to be some difference of opinion as to the effect of errors of refraction, as a predisposing cause, but no doubt astigmatism acts as a cause in some cases.

The subjective symptoms are pain, photophobia, lachrymation and blepharospasm. Of these the most marked is dread of light, and the muscle spasm. In fact these two symptoms are so well marked that it is almost impossible to inspect the cornea in these cases, without a lid retractor. From what I have said the diagnosis of this disease should always be easy upon inspection of the cornea. I will take up the treatment of this form of corneal ulceration separately, as it is largely constitutional.

The treatment should first consist in discovering the cause, and removing it. If due to errors of diet, carefully regulate the diet by prescribing good, wholesome food, and entirely eliminating sweets, pastry, and other dainties from the dietary. I find the majority of these little patients are inveterate candy eaters. Most of them eat candy, pies, cakes and other dainties, instead of partaking of good, nourishing food. The hygienic surroundings of these patients is of the greatest importance. They require particular attention to their physical condition, as these children very frequently present a characteristic strumous appearance, being pale and thin. Their muscles are flabby and they are a picture of malnutrition. They cannot get too much fresh air and yet I find some physicians who recommend keeping them shut up in a dark room. They certainly fail to grasp the cause of the disease. Who would think of building up delicate constitutions by keeping them penned up in a dark room. Is it any wonder they fail to get well under such conditions? Let me emphasize the importance of fresh air in treating these little patients by saying put dark glasses on them and let them get out and enjoy the sunshine and fresh air. They certainly need it if any one does. I put good, nutritious food, fresh air, and sunshine first; because these patients, above everything else, need to have a change of hygienic conditions, and their physical conditions improved. Of course in this connection we must not forget

the carefully prescribed homœopathic remedy; prescribed upon the totality of the symptoms. While our old school friends are limited to the use of tonics as quinine, iron, arsenic and cod liver oil, we have the whole materia medica before us to select from and it is a fact that almost any remedy may be indicated in an individual case. The most frequently indicated remedies are bella., euphrasia, graph., ant. crud, zincum, sulphur, ipec., rhus tox., arsenicum, nux vom., psorinum, sulphur, calc. carb., mercurius and puls. Many other remedies may be indicated in some cases. If rhinitis is present, direct the proper treatment to the nasal cavity. If adenoids, remove them. If astigmatism is present, correct it by prescribing the proper glasses.

Locally, boracic acid, formalin and bichloride of mercury may be used. I usually prescribe formalin, 1 to 5000, and use yellow oxid of merc., combined with atropine, in an ointment, using vaseline as a base. Calomel dusted into the eye is often used.

I have treated phlyctenular ulcerations first, or separately, because they are almost invariably due to some constitutional defect. While all forms of ulcers are in a sense due to some lack of resistance upon the part of the individual system to the invasion of some of the various forms of micro-organisms, the phlyctenular ulcer is particularly constitutional in origin. It is also always secondary, having its origin in a phlyctenule which ruptures, and the ulcer is therefore a secondary lesion, while other forms of ulcers are usually primary in character.

When a corneal infiltrate does not undergo absorption, it ends in suppuration, or ulceration. Primary ulcers undergo several stages. When spreading and edges are foul, we have the stage of progression. When it begins to become clean, the edges smooth, and show signs of healing, we have the stage of regression, or repair, and when it is filling in, we have the stage of cicatrization. Of course, if the first stage is unchecked, it leads to perforation of the cornea with its various sequelae, as prolapse of the iris, anterior synechiae, and possibly to destruction of the eye by panophthalmitis. While it is true that the presence of micro-organisms is necessary to corneal suppuration, these are generally introduced from without. I have often wondered why we do not more frequently have corneal ulcerations following the removal of foreign bodies from the cornea. I see daily some workman with a foreign

body in the cornea, and almost invariably some of his fellow workmen have used their best endeavors to remove it with an old dirty handkerchief on a match. The handkerchief is simply drawn from the pocket and is no doubt swarming with bacteria. Every large manufacturing plant has one or more men who have quite a reputation as experts in the removal of foreign bodies from the eyes. They use no antiseptic precautions and yet ulcers of the cornea rarely follow. This is no doubt due to the fact that most of them are perfectly healthy individuals, and therefore resist the invasion of micro-organisms into the resulting corneal wound.

There are many clinical varieties of ulcers of the cornea, among which may be mentioned the simple ulcer, which may be primarily due to injury, or secondarily due to rupture of a phlyctenule, usually heals promptly, unless in ill-nourished patients, when it may merge into the deep or purulent variety.

The central non-irritative ulcer, which is often stationary, remains for months, and is characterized by the absence of irritative symptoms. The rodent ulcer, which generally develops at the corneal margin in the aged as a narrow, superficial ulcer, with noticeable inflammatory symptoms, the surrounding cornea being infiltrated, and is usually bilateral, and leaves the patient blind, unless checked by the galvano-cautery. The ring ulcer, which occurs in the aged and decrepit, and extends around the circumference of the cornea, cutting off its nutrition and causing consequent sloughing of the cornea.

The crescentic ulcer, usually accompanied by catarrhal conjunctivitis which appears at the upper part of the cornea, and leads to perforation, if unchecked. The dendritic ulcer, found in malarial subjects, and appears in branch-like ramifications, situated superficially with knob-like swellings at the end of the branches. The so-called creeping, or serpigenous ulcer possibly the most serious of any mentioned. It gradually creeps over the entire cornea, apparently healing at one end and spreading at the other, and if not checked promptly, great sloughing and destruction of the cornea takes place, with loss of the eye, or permanent destruction of vision. The atheromatous ulcer which occurs in old corneal scars and differs from the ordinary ulcer in being primarily a necrosis, instead of an infiltration. Many other clinical varieties are recognized by different authorities, but these mentioned are the most commonly met with.

The diagnosis of ulcers of the cornea is easy. Pain, photophobia lachrymation and blepharospasm being the most prominent subjective symptoms and on inspecting the cornea, we find its surface denuded. To determine the extent of the ulcer, two per cent. solution of fluorescin is frequently used, it staining the denuded portion of the cornea a greenish tint.

The prognosis of ulcers of the cornea depends largely upon the appearance of the ulcer, and the presence or absence of bacteria in the secretions from the eye. If bacterial investigation reveals the presence of pneumococci, or a mixed infection, the prognosis is always serious. The prognosis of foul and progressive ulcers is always unfavorable, while the prognosis of ulcers with a clean base is always favorable.

The treatment of ulcers of the cornea resolves itself into the removal of the cause of ulceration, the limiting of the diseased process, the promotion of healing, and the removal of the effects of ulceration. The simple ulcer frequently yields promptly to boracic acid solution, atropine and dark glasses. If ulceration is due to a foreign body, remove it and do not give aconite and let it slough off. If due to the presence of any of the various affections of the conjunctiva, treat it, but always remove the cause.

Various agents are used in limiting the spread of ulcers, most prominent of which are the various antiseptics and caustics as bi-chloride of mercury, formalin, nitrate of silver, iodine, carbolic acid and the galvano-cautery. I am particularly partial to iodine as an application to corneal ulcers, not only to limit the spread of ulcers, but also for its stimulating effect. I always tell the patient that the eye will pain for several hours after applying it, but it always gives me prompt results. I have even gone so far as to give a general anaesthetic and then touched the ulcer thoroughly with pure iodine. I have occasionally used nitrate of silver, carbolic acid, and formaline in glycerine, 1 to 100 to touch the ulcer, but I consider iodine the best application, and have rarely found it necessary to resort to the galvano-cautery. Atropine, of course, is one of the most valuable agents in all ulcerations of the cornea. It not only quiets the ciliary muscle and puts the eye at complete rest, but it also prevents iritic adhesions. In deep peripheral ulcers which tend to perforate, eserine is possibly a better agent. If danger of perforation, a protective bandage should be used, but the indiscriminate use of the pressure bandage is of doubt-

ful value in my mind. The chief argument for the protective bandage is that it keeps dust from the eye and prevents movement of the eyeball. On the other hand, if there is much secretion, it prevents the escape of the secretions and the heat produced by its presence no doubt forms a fruitful soil for the propagation of the various bacteria. I do not want it to be understood that I am opposed to the application of heat to the eye, for I frequently apply heat in the form of moist compresses made out of small pieces of absorbent cotton, which I have the patient dip in a vessel containing hot water, and apply to the closed lid as hot as it can be borne. It is not only stimulating, but also very soothing to the eye, especially if iritic complications are present. If perforation threatens, then, of course, the bandage must be used and if increased intra-ocular tension a miotic is indicated. In some cases paracentesis of the cornea must be resorted to. I have had very little experience with sub-conjunctival injections of bi-chloride of mercury, or cyanide of mercury, as recommended by Darier in his *Ocular Therapeutics*. I have found them so painful that I had to discontinue their use. I have not yet been able to convince myself that normal salt solution is of any particular benefit. Of course if ulcer continues to spread on curetting, or the application of iodine or nitrate of silver, we must resort to the galvano-cautery.

As stimulating agents in hastening repair, we have in the sub-acute stage yellow oxide of mercury ointment, 1 to 2 per cent., powdered calomel dusted into the eye. As local antiseptics, bi-chloride of mercury 1-8000, formaline 1-5000. The yellow oxide of mercury is not only of use in the reparative stage on account of its stimulating effect, but it is also of the greatest importance in bringing about an absorption of the effects of corneal ulcerations, or in clearing up the resulting scar. For this purpose I have even used 5 to 10 per cent. ointment. In this connection I also frequently make use of dinine 5 per cent. to 10 per cent. I occasionally combine it with the yellow oxide in an ointment. I have at different times used thiosinamine 10 per cent. ointment, and feel sure I have gotten some good results. The old school give thiosinamine internally, 1 to 3 grains in capsules three times a day. These patients should, of course, wear dark glasses. The constitutional treatment in these cases, as well as the phlyctenular ulcerations, should not be neglected. Everything should be done

to build up these patients and increase their powers of resistance.

We frequently get good results from the careful prescription of the indicated homœopathic remedy, more especially in those of lowered vitality, or in those of strumous diathesis. In this connection, almost any remedy in the materia remedies may be indicated, but the remedies recommended under phlyectenular ulcerations are the most frequently useful.

BUREAU OF OBSTETRICS

LATEST APPROVED METHODS TO MEET SOME ABNORMALITIES IN PREGNANCY AND LABOR.

BY

J. M. HEIMBACH, M. D., KANE, PA.

I HOPE I will be able to interest you for a few moments on a subject that is as old as the human race, yet it never gets too old to profit by any new and scientific progress and development that will be a means of lightening the sufferings of the prospective mother.

As civilization advances and the pride for dress to keep moving in the maelstrom of fashion is a predominating feature in womanhood, the obstetrical art must likewise be cultivated to the highest state of efficiency and no longer trusted to the old "granny" in the neighborhood. All the difficulties arising in labor cannot be blamed on fashion alone, but the lack of proper care during the menstrual periods, the intermarrying of different tribes, clans and nationalities which leads to poor adaptibility of the child's head to the pelvis of the mother; the abuses of civilization and dissipation; idle life of the mother which leads to relaxed condition of the uterus and abdominal walls and a greater tendency toward malposition—all of which are conducive to abnormalities that tax the skill and resources of the accoucheur.

Many of the present day difficulties that we meet were unheard of among primitive people. With them instinct and intuition prompted them to action and not acquired knowledge or scientific investigations. It behooves us, therefore, to apply prophylaxis in the obstetrical art as well as in all other diseases. It is a known fact that the Japanese women have comparatively easy confinements compared to other civilized women;

and their mode of dress, which gives room for growth to the pelvis should be encouraged. They are usually small in stature, yet invariably have a large, roomy pelvis. They are not boxed up in a corset from armpit to knees as are a great many of our ultra fashionable women in our highly civilized centers of the world.

I shall now take up a few of the most annoying and desperate complications that we have to deal with.

Retained Membranes and Placenta.—It is not an infrequent occurrence for portions or even the whole membrane to be retained in the uterus after the placenta is expelled. Fortunately very little harm results from it. According to Shroeder they practically never cause bleeding. Mickel and Hegan, on the other hand, have shown that retained membranes could give rise to puerperal hemorrhage as well as septicemia.

Our best authorities agree that it is not wise to invade the internal parts in order to remove shreds of membranes or even greater portions in the absence of symptoms of infection.

As far as my individual experience goes I have never had any trouble. If I have any rise of temperature to deal with from any cause whatever, I first try to ascertain the cause, and if it is in the genital tract I give a hot intrauterine douche with a liberal amount of pix cresol in it, and the indicated remedy. If I do not have definite indications for any other remedy I give them Echinacea. It has been proven to raise the opsonic index and has not only done good work for me, but for most everybody who has used it. Definite indications for such remedies as Lachesis, Arsenicum alb., Rhus tox., Bell., Bry., Veratr. vir., etc., should be recognized and prescribed for according to our law of cure with the utmost confidence. It has been many a day since I have had any trouble with puerperal cases. If a liberal amount of pix cresol is used in the water to wash the hands and the patient's external genitals before and after labor, it will be seldom, indeed, that there will be any trouble. I say liberal amount, because it does not irritate the mucous surfaces and cannot do any harm. I am not advertising this drug either. I have seen adverse criticisms of it because of the way it is placed on the market. That is nothing to me. I believe in holding fast to things that are good.

I read a rather interesting and novel paper in *International*

Clinics, Vol. IV., 1909, by J. J. Rectenwald, Pittsburg, Pa., who recommends using a gravity method in removing adherent placenta instead of the usual force method; and gives four principal reasons for using it:

1st. "Inherent risk of infection owing to the introduction of the hand into the uterus."

2nd. "Extreme liability of uterine laceration by reason of an error of judgment as to the intensity and direction of manual force to be exerted."

3rd. "Imminent probability of an incomplete removal of the placenta."

4th. "Frequency of death owing to hasty removal of adherent placenta by force and attendant complications."

He seems to have been rather unfortunate in his parturient complications in the previous year.

The liability of infection with our present day aseptic and antiseptic technique by introducing the hand into the uterus is practically nil. In my opinion the annoyance and anxiety to the patient while she was waiting for the weight tied to the cord to remove the placenta would be more detrimental than the speedy manual extraction and satisfied mind and relaxation that would naturally follow in knowing that it was all over.

There probably is no other time in a woman's life when she feels so strong a sense of relief as after labor; and a physician has no right to leave his patient without knowing that his work is completed and well done. The patient's knowledge of all being over affords relaxation of both mind and body, and gives Nature a chance to restore the mother to her normal condition in the most speedy way possible.

There is not much chance of lacerating the uterine wall if the physician has an educated touch. It is very easy to detect the placental site and separation is easily accomplished. If the fingers are swept over the placental site little elevations or islands can be easily detected and removed with either finger or currette. There is nothing like the finger for an instrument in the uterus whenever you can make use of it. You can feel what you are doing. It would, indeed, require brute force to cause death in the removal of an adherent placenta a reasonable time after the birth of the child.

Placenta Previa.—This condition is always a serious complication and is a subject that always invites the closest attention and best efforts and skill of the attending physician. The

first ten years of my practice I almost acquired the opinion that placenta previa was a mere text-book topic and afforded exciting reading matter for the embryo doctor but seldom verified in practice the real excitement in a physician's work at the bedside. When I got my first introduction to the real article, about three years ago, I changed my mind very quickly and found myself one of the busiest men on earth.

I was about four miles out of town with an old granny and a husband to help me. The os dilated about two-thirds and the placenta covering about three-fourths of the opening and a hemorrhage that looked anything but pleasant. I ruptured the membrane, but owing to the size of the child's head and poor contraction I could not get enough pressure against the bleeding surfaces to stop the flow. I tried to apply my forceps high up very gently, but the placental attachment was over the anterior lower segment and the least effort resulted in a terrific flood. I immediately abandoned any effort with the forceps and performed podalic version. By this time the husband, who was a foreigner by birth and had not very good command of the English language and did not understand the situation, got an idea that I was trying to kill his wife and was about to lay hands on me. With pretty strong language and accent I got him to assist me as well as he could and succeeded in delivering a nine-pound baby and saved both. It was more impressive to me than any lecture I ever heard on the subject, although the time was very short.

About five months later I had a case of central implantation and no dilatation in a primipara thirty-nine years of age and nearly eight months advanced. This time I had time for preparation and to get assistance. I gradually dilated the cervix with my fingers and tore my way through the placenta and by podalic version I succeeded in drawing one leg into the cervix and all bleeding stopped. I delivered her of a medium sized child, which died about half an hour later in spite of all our efforts to save it. The mother got along very nicely with the exception of a slight infection which yielded to a light curretment, a hot douche of pix cresol and an application of iodine to the whole endometrium. She has been a healthier woman since than she ever was before.

The best method to adopt necessarily must be selective dependent upon the conditions present. If the complication is discovered before viability of the child and no uterine contrac-

tions present, temporizing might be justifiable in the minds of some for the sake of getting a living child. If such a course is decided on, the patient should be kept in bed and as quiet as possible until spontaneous labor sets in or is induced.

It is a question in my mind whether this procedure should ever be pursued if one takes into consideration the high mortality rate of the infants and the increasing danger to the mother as she approaches the end of gestation. Personally, I should advise to terminate labor before viability of the child if it is discovered. Hemorrhage is usually the first sign of such a condition, and very seldom occurs until pregnancy is well along; for hardly ever is anybody called to treat placenta previa before viability of the child. Hemorrhage is invariably the first premonitory symptom and rings in a hurried call for the physician; and it is his duty to check it in the most speedy way possible, whether labor is in progress or not, and facilitate labor in the best way to fit the case. No single pet method can always be applied in all instances.

In lateral implantation, of which we have by far the most, with normal presentation and pretty good dilatation, or an os that is easily dilated, one may manage to sweep the finger around the cervix as far as one can reach, and rupture the membrane. This is usually sufficient for the engaging part to descend and plug up the bleeding points and labor progresses in a normal way thereafter. Some advise the application of the forceps as I did in my first case; but I would vigorously condemn it. It is not an easy thing to apply forceps high up in otherwise normal conditions; and to apply them in this complication where you necessarily have to irritate the bleeding surfaces you only cause more hemorrhage. It does not look reasonable to me to use forceps at all unless you see in advance that the application can be easily made. This, however, is not the case. The application has to be made under most adverse circumstances when the os is only partly dilated and the presenting part high up. Such necessary manipulation could not help but cause terrific and prolonged hemorrhage and exsanguination of the mother, whereas introduction of your fingers and hand would at once plug the cervix, and by version you can use the leg and breech in succession as your plug and bleeding is under your control. In breech and transverse presentation we can only think of grasping the foot and plugging the os.

There may be rare instances where one meets with a very rigid os that will barely admit a finger, with very profuse hemorrhage, in which thorough packing would have to be resorted to as a preparatory measure under the most antiseptic precautions that can possibly be had under the circumstances. Maternity hospital facilities cannot very well be carried around in an obstetrical bag that you have ordinarily to take with you. I find it very convenient, however, to always carry a few two-inch roller bandages in mine that I know are clean and ready for use when I need them. They make the best kind of packing material and are easily removed afterwards. The tampon should be removed in twelve to fifteen hours, and one of the above methods carried out. If one is prepared and can use one of the rubber dilators, such as Barnes bags, the balloon of Champetier de Ribes, Branne's Colpeurynter, etc., might be substituted. The Pomeroy bag is an active dilator, and is not dependent on uterine force, but controlled by the operator. It has two compartments and makes pressure from above which should control the bleeding effectually and ample time for good dilatation can be taken. The Pomeroy bag appears the most reasonable to me of any, although I have no experience with any of them. H. H. Hussey praises this bag very much in the *American Journal of Surgery*, 1910, June number.

One must not forget that concealed hemorrhage can take place with the tampon or any of the rubber dilators and they should all be considered as preparatory measures and the patient should be carefully watched for signs of collapse, and immediate action instituted if such should develop. Version in one form or another, external, internal or the combined method or bipolar version of Braxton Hicks must be used. The best method and one of the oldest is internal podalic version when at all applicable. The instrument is always on hand and has the cultivated sense of touch in it to guide you.

There is another method which is non-obstetrical and is only applicable in very select cases and suitable surroundings. I have reference to Cæsarean section. Briefly stated, this procedure would be only advisable in competent hands and antiseptic surroundings. Cases in which the cervix is very rigid and undilatable and a tampon would fail to stop the hemorrhage, or where bleeding is checked and the os fails to dilate and recurrence of hemorrhage is imminent. Cæsarean section should offer much in preventing mutilation of the lower uterine

segment and lessening the mortality of both mother and child.

Miller, of Pittsburg, recommends tying the uterine arteries close to the cervix. He used this plan in fourteen cases with two deaths. While it might be an effective way to control the bleeding yet those accustomed to bipolar version would be just as safe and the future blood supply to the uterus would not be impaired.

From the study of this subject and in accordance with my paper we may form the following conclusions:

1. Pregnancy should be terminated promptly after diagnosis of placenta previa is made.
2. Hemorrhage must be controlled.
3. Laceration of the lower segment of the uterus and traumatism should be guarded against as much as possible.
4. The life of the mother should be considered first and consideration to the child next, provided it is living and within two months of term.
5. Marginal cases demand very little more than tamponade and rupture of the membrane.
6. Parietal and central locations always demand interference.

Puerperal Eclampsia.—There is still some doubt among able practitioners that cases of eclampsia occur in patients who have no albumin in the urine. This I do not believe. All the cases of eclampsia I ever saw in private or consulting practice had an abundance of albumin present. I could not find any authentic cases in literature that were true eclampsia without albuminuria. I realize that my experience is more limited than that of men associated with large hospitals. Dr. Robert Jordine, physician to the Glasgow Maternity and Women's Hospital, never had any cases without albumin being present. Nor did J. W. Ballantyne, physician to the Royal Maternity Hospital of Edinburgh. It is quite possible that there are some cases of convulsions during pregnancy without albumin in the urine, but it is questionable whether they were not hysterical or epileptic. We do know of a certainty that they have a toxic origin and the treatment resolves itself naturally to elimination, to rid the system of those toxins or deleterious substances through the bowels, the kidneys, and the skin. This must be preventive as well as curative. If it were at all possible to impress expectant mothers sufficiently, to engage their attending physician not later than the fourth month of their pregnancy, and have him keep watch over the physiological

functions of the excretory channels, especially the kidneys, many a woman could be carried safely through her period of gestation without convulsions and a possible loss of life.

No fixed rule can be laid down as to whether these cases must be treated as non-obstetrical or obstetrical, both methods being applicable in individual cases. The fact that cases occur in the post partum stage is sufficient evidence that the emptying of the uterus is often not sufficient to save the patient from this awful calamity.

S. H. Blodgett, Boston, claims that in some few cases of pregnancy where convulsions occur acetone and diacetic acid are present in large amounts in the urine and that alkali treatment will prevent the convulsions. It is, indeed, hard to tell what the best methods are to treat eclampsia. All agree that the excretory functions must be restored if possible. Whether that can be done in a homœopathic way or with the crudest empirical prescribing depends. Morphine is less used, in fact condemned by our best men. It does not seem rational to use it. Drugs that will act on the kidneys and increase their action certainly should first be considered. I would mention *Cu. ars.*, as the king of them all and I could see the good results in all the cases in which I used it. This remedy in conjunction with a milk diet, colonic irrigation and hypodermoclysis with saline solution and hot packs will control most cases. I have seen the œdema of the limbs disappear in a week's time by the use of *Cu. ars. 2x* without any other aid, when considerable albumin was present. If no improvement should follow the above treatment I would not hesitate to give saline purges and diuretics, such as citrate and acetate of potassium and large quantities of imperial drink, including lemon juice in liberal amounts. The patient should be kept warm and guarded against any drafts to avoid any possible chills. A chill might throw more strain on the kidneys and precipitate a convulsion. A sudden fall of temperature is very liable to prove serious in most all kidney lesions. The preventive treatment is quite satisfactory, and I could not record a single failure. The curative treatment is not nearly so satisfactory. There is more to do all at once. You must protect the patient from injuring herself and control the fits. Chloroform by inhalation probably acts the quickest, but is not striking at the cause and consequently is not a very rational method of procedure, alone. By using chloroform, however, you may subdue the fits and prevent injury and in the meantime apply curative measures

which necessarily would be the same as those that are used for prevention, only more drastic.

Dr. Robert Jordine considers diuretics by the mouth too slow and uses injections of normal saline solution with acetate of soda, 1 to 160, two to three pints in the areolar tissues, usually under the breast or direct into a vein.

They should be put in a hot pack and afterwards kept between warm blankets. The pulse should be watched and stimulated if necessary. If such a line of treatment does not improve the patient, obstetrical methods should be instituted and the gravid uterus emptied in the most speedy way possible if labor has not already set in. I hope this subject will be thoroughly discussed so that all the information possible can be obtained. Much more could be written on this subject, but I merely hinted at a good many things and will leave it to you to discuss the details.

I will also present a little experience with a drug that has given me a good deal of satisfaction and my patients comfort at the same time. Every one of you have had primiparas where the os was rigid, the pain agonizing, in bed and out of bed, begging you to do something, yet no apparent progress. You do not want to stay and the patients do not want you to leave them because their suffering is so intense. I attended such a case about a year ago, and I hardly knew what to do. I finally concluded to do something after several homœopathic prescriptions failed. I opened my case and gave her one-sixth of a grain of Heroin hydrochloride hypodermically and laid down on the couch. She went to sleep and slept for several hours; and when I made my next examination she had progressed much faster than before and asked me why I had not given her that long before. She said: "For God's sake, give that medicine to every woman you attend." Since I have used it in a number of cases where dilatation was slow and suffering intense and never had occasion to regret it. I could see only good from its use. The pains get more regular and durable and usually they sleep a good share of the time and always faster dilatation than before. I never repeated the dose up to date because labor followed in a satisfactory way. I had no stillborn child from it, no trouble but what seemed perfectly normal.

I would recommend its use, one-sixth to one-quarter of a grain, in such patients and report the cases to me, both successes and failures.

CONTRIBUTED ARTICLES

RECENT RESEARCHES IN MENTAL MEDICINE, ESPECIALLY IN
THE ETIOLOGY AND TREATMENT OF DEMENTIA
PRAECOX AND GENERAL PARALYSIS.*

BY

L. VERNON BRIGGS, M. D., BOSTON, MASS.

GENERAL PARALYSIS.

W. Ford Robertson, M. D., Pathologist to the Scottish Asylums, in his Morrison lecture for 1906, states that general paralysis has been on the increase both in Great Britain and abroad of late, that it is a disease about which the public understands almost nothing, that it is by them merged with other forms of insanity which even in this age are still looked upon as a mysterious and fatal visitation of a nature entirely different from that of disease as they comprehend it. It has been found that antisypilitic remedies have no beneficial effect, and, therefore, that the disease is determined, not by the direct action of the syphilitic toxines, but by secondary autointoxication which may follow this action.

Dr. Macpherson's opinion, which Dr. Lewis G. Bruce endorsed is that the most characteristic temperature in general paralysis is a recurrent febrile attack every one or two weeks. He also ascertained, "That leucocytosis and hyperleucocytosis accompany the rises of temperature, and that in the third stage leucocytosis commonly occurs from time to time without any elevation of temperature. He inferred from these observations that each febrile attack represents the resistive reaction of the body to some toxic substance, and each interfebrile period an intermission when the resistive powers of the patient have subdued the action of the toxine. He concluded that general paralysis is a disease directly due to poisoning by the toxines of bacteria whose point of attack is through the gastric and intestinal mucous membrane. There is evidence that the bacillus coli is one at least of the organisms concerned in the production of the toxemia."

Dr. Robertson says that, "In 1902 Dr. Douglas M'Rae, Dr. John Jeffrey and I commenced a bacteriological investigation

* Note.—The first portion of this paper was published in the *HAHNEMANNIAN MONTHLY*, December, 1910.

of cases of general paralysis with a view to ascertaining if any facts could be elicited that would throw light upon the nature of the supposed bacterial toxemia. It may be noted here that five Italian observers had previously made bacterial investigations in cases of this disease. The blood, the urine and the cerebro-spinal fluid were examined by one or more of these observers, various micro-organisms being found, but I think it may be said with fairness that no very noteworthy addition to our knowledge of the pathogenesis of general paralysis has resulted from their researches. Dr. M'Rae, Dr. Jeffrey and I made post-mortem cultures from the inflamed gastro-intestinal tract, the bronchi, lungs, brain, etc. Among the numerous organism obtained there was one which, from the constancy of its presence in the alimentary or respiratory tract, by its occasional occurrence in the brain and in view of the ascertained pathogenic characters of the group to which it appeared to belong, there seemed reason to believe might have special importance. This was an organism resembling the Klebs-Löffler bacillus. Cultures of a bacillus of this nature were obtained from seventeen cases out of twenty examined. In the remaining three a similar organism was afterwards found in sections of the alimentary tract. Cultures were obtained from the brain in four out of seventeen cases. On the grounds of our observations we advanced the hypothesis that general paralysis is the result of a chronic toxic infection from the respiratory and alimentary tracts, permitted by general and local impairment of the defences against bacteria, and dependent upon the excessive development of various bacterial forms, but especially upon the abundant growth of a Klebs-Löffler bacillus of modified virulence, which gives the disease its special paralytic character."

In the second Morrison lecture he says, "Now it is laid down by such authorities as Muir and Ritchie that an organism differing from the diphtheria bacillus solely in its want of virulence must be regarded merely as a diphtheria bacillus in an attenuated condition, and should be spoken of as such. Neisser and several other authorities have expressed a similar opinion. We have, therefore, I think, been perfectly justified in provisionally regarding the organism we have studied as an attenuated form of the Klebs-Löffler bacillus. In doing so we have left it an open question if the organism differs in certain essential respects yet to be discovered from the attenuated form of the Klebs-Löffler bacillus, and is, therefore, a

special bacillus. Our more recent observations incline us to the view that it is a special organism; but whether this supposition should turn out to be correct or not, if an organism of this nature is really the essential pathogenic agent in general paralysis and tabes dorsalis, as we believe we have evidence to prove, then surely it is deserving of a special name. We, therefore, propose to refer to it as the bacillus paralyticans."

"After having studied experimentally the phagocytic and bacteriolytic actions of the blood upon the bacillus paralyticans, Dr. M'Rae and I endeavored to ascertain if there was any evidence of the occurrence of similar processes in the tissues and body fluids of general paralytics. Every case studied with this object has given the same answer, an emphatic 'Yes.'

"Experimental infection of three rats and a goat with diphtheroid bacilli isolated from a case of general paralysis has resulted in the production of symptoms and tissue-changes resembling those of general paralysis."

"There is ample warrant for the conclusion that, to a person whose general and local defences against bacteria are intact, the bacillus paralyticans is quite innocuous. It can neither multiply to any important extent upon a healthy mucosa nor penetrate into the subjacent tissues."

"Dr. M'Rae and I have for a considerable time been anxious to produce an anti-serum but hitherto the difficulties in the way have been insuperable. Thanks, however, to the energy of Clouston, who has ever been ready to do all in his power to facilitate these researches, and whose unceasing interest in them has been one of the chief encouragements in our work during the last four years, these difficulties have at length been overcome. We are, at least, going to give such serum treatment a trial."

In a later article published in September, 1907, on "Observations on the Treatment of General Paralysis and Tabes Dorsalis by Vaccines and Anti-sera," he gives the method of vaccination as follows: "The material employed was a suspension of a weighed quantity (10 to 30 mgr.) of the bacilli in 2.5 c.c. of sterile saline solution heated to 60 C. for 15 minutes. The skin of the limb was cleansed by rubbing with a 1 per cent. lysol solution, and injections of the emulsion were given hypodermically. Local effects varied from the merest induration at the site of puncture to erythema and oedema of the subcutaneous tissues. The immediate general effects were the

production of brief pyrexia, flushing of face, headache, and drowsiness, while increase of tremors, ataxia, and a return of lightening pains occurred in some cases. Mentally, there were remarkable changes in not a few of the cases.

"Case I.—Female, a third-stage, bed-ridden general paralytic, with contractures and lightening pains of an intensely distressing character. Three injections were given and the pains were increased for a time after each. Three weeks after this she began to make active efforts at dressing herself and walking about with the aid of a chair, and was able to express herself coherently, while the pains seldom recurred. Two months later she was able to scrub floors and go about the wards without support. She was never able to stand erect, however, on account of permanent flexion at the knees. This improvement was maintained for a year, when the patient was removed from the asylum."

He follows with a number of other cases in which the improvement was marked, but not permanent.

In an article by Drs. Robertson and M'Rae, published in June, 1907, they state, "A growth of diphtheroid bacillus has now been obtained in cultures made from the brain post-mortem in ten cases of general paralysis out of twenty-four in which cultures were made from this organ. Diphtheroid bacilli exhibiting metachromatic granules in Neisser preparations have been detected in the fresh blood in one case and in sections of the brain in two cases. It has been ascertained by experimental methods that these diphtheroid bacilli in contact with the living blood are rapidly taken up by the polymorpho-nuclear leucocytes, and that they may be completely digested in the course of two or three hours. Bodies exactly corresponding in appearance to these dissolving bacilli can be detected in the blood and cerebro-spinal fluid of the living general paralytic, especially during a congestive attack. Whilst the fact that most of the bacilli present are in process of disintegration satisfactorily explains the long succession of negative results of endeavors to obtain cultures from the blood and cerebro-spinal fluid, we have, by the use of special methods, succeeded in obtaining pure growths of a diphtheroid bacillus from the fresh blood in four cases of general paralysis, and from the cerebro-spinal fluids withdrawn by lumbar puncture in two cases."

W. Ford Robertson, M. D., Glasgow, and Lewis C. Bruce,

M. D., of Murthly, Scotland, with their associates, and also John D. O'Brien, of Massillon, Ohio, as well as some physicians in Baltimore, claim that they have isolated the diphtheria bacillus, which formed acid in glucose and saccharose test broths, and which has been named *Bacillus Paralyticans Brevis*. Dr. Robertson also claims that he has isolated from cases of general paralysis the *Bacillus Paralyticans Longus*. These bacilli injected into animals are followed by paresis and other symptoms of general paralysis. He has found, as long ago as 1903, this bacillus in the brains of four cases of general paralysis, out of sixteen examined.

Dr. W. Ford Robertson, who has recently succeeded Dr. Clouston as head of the Royal Edinburgh Asylum at Morning Side, and R. Dods Brown, in an article on "The Bacteriology of the Cerebro-Spinal Fluid in General Paralysis of the Insane," in the *Review of Neurology and Psychiatry* for January, 1909, says, "The new observations, the results of which we wish now to record, have been made upon twenty general paralytics and ten cases of other forms of insanity. In all of these the cerebro-spinal fluid has been obtained by lumbar puncture. Cultures have been made both from the centrifuge deposit and from the fluid, and films of the centrifuge deposit have been examined for the presence of micro-organisms. In all of the ten control cases, none of which presented any lymphocytosis, the centrifuge deposit appears to be free from micro-organisms. In the twenty cases of general paralysis the results have been very different. In twelve of them diphtheroid bacilli can be observed either lying free or in the interior of phagocytic cells."

Clouston, in his *Clinical Lectures on Mental Diseases*, 6th Edition, on "Causation of General Paralysis," says, under the head of the toxic-bacteriological theory, "That is the latest, and it is now certainly in the ascendant, both on the continent and in this country. Macpherson gave it the weight of his authority while Ford Robertson has been in this country by far its most brilliant, enthusiastic and convincing advocate. He has supplied us in its defence with a great mass of clinical, microscopic and bacteriological facts, the result of his own investigations. I shall go to his last utterance in the *British Medical Journal* for October 24, 1903, to obtain a resumé of his views. He admits that, to begin with, there must usually be a predisposing cause such as syphilis, lead poisoning or alcohol, and he might have added mind-

strain from over-rush, traumatism and heredity. But none of these could have caused the disease by themselves. The real essence of the matter is a specific toxin acting on the brain cortex. To get the toxin there must have been previously bacterial invasion. He finds proofs of this in chronic changes in the bone marrow, producing a weakness in the normal defences against excessive bacterial invasion, in the excessive development of saprophytic bacteria in the alimentary canal, in the respiratory tracts, in the throat and in the brain itself. What is this organism? It is a 'bacillus, which, in its culture and morphological character resembles the Klebs-Löffler bacillus,' the organism of diphtheria. This exists in two forms—the usual one and a 'filamentous' form. His demonstrations of the universal presence of this organism in general paralysis, and the catarrhal changes in the mucous membrane of the stomach and intestines, which I have myself seen, for he did the greater part of his bacteriological work at the Royal Edinburgh Asylum—two of our assistant physicians, Drs. McRae and Jeffrey, working under his direction—were most striking. He fed rats on pure cultures of this bacillus, and they died with symptoms having many analogies to general paralysis, while after death there were found in their brains many of the same changes which are most common in that disease. Is this bacillus, therefore, not the true diphtheria organism, but really the specific organism of general paralysis. Dr. Robertson says that this is not yet proved, but he evidently thinks the great probabilities are in favor of this hypothesis. He dwells unceasingly on the weakening of the normal defences and the normal immunity being essential factors for the production of general paralysis and all other toxic insanities."

These views have been opposed in this country by Eyre and Flashmann (2), Mott (3), Ferrier (4), Bulloch (4), Hamilton Marr and several of the medical journals. On the other hand there have not been wanting those who have recognized that the various points of interest we have brought forward are entitled to consideration, and some have accepted the conclusions that we have drawn from them. As regards general paralysis many of our observations have been confirmed by those of O'Brien (5) and Langdon (6) in America. O'Brien's work has been extensive and in respect of his experimental observations he has gone ahead of us. He has isolated an organism resembling the Klebs-Löffler bacillus from 95 per cent. of cases of general paralysis."

In the first Herte lectures in the University and Bellevue Hospital College in New York, Professor Halliburton reviewed the work of Mott and himself in the chemical pathology of general paralysis of the insane. The work indicated that some of the symptoms of the disease are due to auto-intoxication with the products of disintegrating cerebral tissue. The main etiologic problem of the disease remains as enigmatic as before and the first cause that directly induces this breakdown of nerve tissue is still unascertained.

Louis Hoag, M. D., in an article on, "Organism X, Probably of the Corynebacterium Group: Its Differentiation from B. Diphtheriae and Allied Organisms. Its Pathogenicity in Man, Especially in Bronchopneumonia, and Its Relation to General Paralysis of the Insane," says that he regards "Organism X," as a factor in disease, especially as at this time so much is heard of the role of "diphtheroids" in this and that condition.

In the *Review of Neurology and Psychiatry*, in an article on "The Presence of Organism in the Blood and Cerebro-Spinal Fluid in Mental Diseases," *Journal Ment. Sc.*, January, 1910, Winfred Muirhead says, "A bacillus of the diphtheroid group was isolated in both general paralysis of the insane and in acute delirious insanity in about one-third of the cases, and this organism, which has been called 'Organism A,' is identical in both these diseases. These results throw considerable doubt on the importance of the organism as an essential cause. During life, from twenty-five cases of general paralysis, 'Organism A' was isolated in pure culture from the blood in eight, or 32 per cent. and in three of these eight it was also obtained from the cerebro-spinal fluid." In conclusion he says, "The evidence advanced is not considered sufficient to justify a statement that 'Organism A' is the cause of general paralysis and delirious insanity. The cultural reactions of 'Organism A' are described in the paper with micro-photographs, including those of the plate colonies of 'Organism A,' also bacillus paralyticus brevis and longus."

In Vol. V, *Review of Neurology and Psychiatry* for November, 1907, P. Pettrazani sums up an article on "Neurasthenia and General Paralysis" by saying that "the condition of chronic auto-intoxication, which gives rise to the clinical picture of neurasthenia, may later, in a nervous system prepared by syphilis, give rise to general paralysis."

In Vol. LXIV, *American Journal of Insanity*, P. W. MacDonald, M. D., Resident Physician and Superintendent of County Asylum, Dorchester, England, says: "If Dr. Mott could be induced to devote a few months to the study of general paralysis as met with in districts like Dorset I am inclined to think his impregnable fortress of no syphilis, no general paralysis would shake still more, and I am assured on good authority that the walls of his masterly built edifice begin to show fissures."

In the *Review of Neurology and Psychiatry* for November, 1909, in an article on, "The Pathology of General Paralysis of the Insane, with Special Reference to the Action of Diphtheroid Organisms," by Flashmann and Latham, (*Trans. Austral. Med. Cong.*, Vol. III, 1909), is the following: Reference is first of all made to the much-discussed question of syphilis as being the cause of general paralysis, then the work done by Ford Robertson and his colleagues is shortly discussed. In 1903 Ford Robertson, in association with Shenna, fed rats on the diphtheroid bacillus, with the result that these animals exhibited signs of paresis, and after death changes similar to those seen in general paralytics were found in the organs. Flashmann and Latham have carried out a series of experiments of similar lines to those of Ford Robertson and Shenna. They injected into fifteen rats a diphtheroid organism obtained from a general paralytic.

The post-mortem examination of the rat which survived longest was very interesting and exhibited well-marked changes in the brain and other organs. In the cerebral cortex were found small areas occupied by newly-formed neuroglia cells, while the nerve cells in these situations were destroyed. In the medulla, pons and cerebellum the increase consisted of large numbers of more or less isolated spider cells. The pia-rachnoid over almost all parts of the brain was much thickened and infiltrated with lymphocytes. There was a definite increase in the number of layers of ependymal cells lining the ventricles, together with an increase in patches of the neighboring neuroglia. The vascular changes showed in many places beautifully marked typical periarteritis. A conspicuous feature of this brain was the great increase in the number of capillary loops seen in sections, especially of the cerebellum. This was very noticeable when a comparison with the normal brain was made." . . .

"It is thus shown that diphtheroid organisms administered over a long period can produce the cerebral changes which are typical of general paralysis."

In an article on, "A Bacteriological Investigation into General Paralysis of the Insane, and a Table of Blood Counts," by David Thomson, in the *Journal Ment. Sc.* for July, 1909, he describes a bacillus which he found in the spleen of a patient who died at Horton Asylum. Thinking this might be the bacillus mentioned by Ford Robertson, careful search was made for them in the various viscera of patients who died of general paralysis. The blood of several of the patients also was examined before and after death. In all, forty general paralytics and fifty other patients as controls were examined. There were two forms of bacillus present, short and long, producing strong acid formation and gas in glucose broth. They were Gram negative and sometimes arranged in chains. Gives a detailed account of the frequency with which the organisms were found in the different organs in the general paralytics and in the control cases, and a description of their reactions in various culture media. Considers his results indefinite, but points out that the bacilli were found much more frequently in the general paralytics than in the control cases. The bacilli probably belong to the intestinal groups, and thinks they may have invaded the blood during the final moribund state of the patient. Concludes with a tabulated form of thirty blood counts in general paralysis, which show an average leucocytosis of 9353. Rae Gibson."

Zilanakis is making a study of the cerebro-spinal fluid in the insane. He has recently examined the fluid in 107 insane patients, making 160 examinations. He found that lymphocytosis in the cerebro-spinal fluid is one of the earliest and most constant signs of general paralysis. The alcoholic patients display the largest proportion of albumen in the cerebro-spinal fluid side of cases of general paralysis. His experience indicates that the epileptiform attacks of general paralysis are favorably influenced by lumbar puncture.

John D. O'Brien, M. D., of Massillon, Ohio, in a paper on, "Experimental Observations into the Etiology and Treatment of Paresis," read at the sixty-fourth annual meeting of the American Medico-Psychological Association, says that, "From the cerebro-spinal fluid of 62 cases of paresis, we have isolated the B. paralyticans in 70 per cent. of the cases. In several of

the cases the recovery of the organism was repeated. In four cases, the only contaminating organism present was a diplococcus, which grew poorly."

From the respiratory tract he has isolated the bacillus paralyticans in 95 per cent. of the cases and in less than 2 per cent. of the other insanities. In 14 paretics, after fasting 24 hours and then having their stomachs washed, enormous numbers of bacteria were present in 11 cases, the bacillus paralyticans predominating.

He states that in his X-ray pictures of the teeth and jaws of a large number of cases of paresis, he noted multiple abscesses of the roots, in an area about which there were distinct pockets of pus found. In quite a few cases he was able to isolate diptheroid bacilli in connection with a few pus-producing organisms.

"With reference to the cases under treatment, seven cases were treated alone with vaccine. Of this number, three have shown remarkable improvement, two have gone from the hospital in excellent mental and physical condition, have been away nine months and have taken positions. The last reports from the relatives state that they are doing well. A woman, at present in the hospital, is rapidly approaching a remission. The remaining four cases show but slight improvement mentally, although there has been considerable physical improvement.

"We have now remaining under treatment 10 cases and with this group we have resorted to our anti-serum combined with vaccines. We believe this plan of combined active and passive immunization gives better results than anti-serum alone or vaccine alone. We believe the anti-serum prevents the undue depression which usually accompanied the negative phase."

Ernest S. Reynolds, M. D., (London) F. R. C. P., Asst. Physician to the Manchester Royal Infirmary, in an article in the *Review of Neu. and Psy.*, 1904, says: "In my opinion it is by no means proved that every case of general paralysis and tabes is due to syphilis. It is, for instance, not at all uncommon for me to obtain a definite history of gonorrhœa in tabetic cases, but to absolutely fail to get any history of syphilis. Now, it certainly seems to me more or less unscientific, and a closing of the door to future inquiry, to assume because a person gets such a common affection as gonorrhœa and subsequently shows signs of tabes, that his gonorrhœa must have

been accompanied by syphilis in spite of all evidence to the contrary."

Arthur W. Hurd, M. D., Supt. Buffalo State Hospital, in a paper read before the Medical Society of the State of New York, January, 1902, on "Etiology of Paresis," says, that "while syphilis is the most common factor in producing paresis, and may be the direct or exciting cause, it is not usually the sole cause, but there is associated with it the deleterious effect of mental stress and over-excitement, dissipation and alcoholism, and heredity." He adds that in a certain relatively small number of cases mental stress, work or over-work may be the sole ascertaining cause. Traumatism may also be the cause in a still smaller proportion of cases.

Dr. C. L. Dana, of New York, says, "At least one-third of my patients who have tabes honestly do not believe they have ever had syphilis; and yet, if they have tabes must I say to them: you must have had syphilis? I should say no. And at any rate there is certainly a syphilis insontium which runs its course without the patients knowing it, and that fact ought to be acknowledged by us and used to soften the situation."

Dr. F. W. Langdon, of Cincinnati, says, "There is a very strong reason why we should be careful and conservative, and we may say, pro-syphilitic advocate as Gowers, positively states that in 10 per cent. of cases of tabes, syphilis can be absolutely excluded."

In one case of general paralysis, Dr. Lewis Bruce injected one-half cc. of streptotoxine or vaccine and in three days repeated. In eight days injected one-half cc. of staphylotoxine, called Aurens vaccine which gave temporary improvement.

I often raise this question, "How do we know that mercurial treatment does not have to answer in part for the symptoms of tabes and general paralysis and has any difference been made (between the cases who have had a course of mercury and those who have not) in using Wassermann's reaction?" There is a great variation in the findings of different men who have used the Wassermann test, and their opinions as to its value are consequently at variance.

E. Castelli, M. D., of New York, in an article on "The Wassermann Reaction," read at the Sixteenth Annual Session of the American Medical Association, at Atlantic City, June, 1909, (*Jour. A. M. A.*, Sept. 18, 1909), says, "A special value has been attached to the Wassermann test of the spinal fluid

as a means of early diagnosis of general paralysis. This conception does not respond to the reality—in fact, I may say that it is in antithesis with it. The number of cases of general paralysis in which the Wassermann reaction gives positive results varies with the different investigators from an average of 50 to 60 per cent. Levaditi says that only 58 per cent. of the cases of general paralysis give a positive Wassermann reaction, but they all establish the fact that the reaction is almost always constant in advanced cases.” . . .

“The clinical interpretation of the Wassermann test will show either active lues when detectable in the blood serum and passive progressive disintegration or the so-called dechance of the nervous system when detected in the cerebrospinal fluid. This conception of the reaction will change our clinical as well as our therapeutic views, as it will also make us understand why other conditions of the nervous system, like dementia praecox, senile dementia, idiocy, imbecility, etc., could give a positive reaction. That would confirm the idea already expressed by me in the paper read at the opening of the Neurological Society in New York, when I said that probably we would be compelled to give the Wassermann reaction a wider interpretation and consider it in many cases as a grave disturber of the metabolism of the nervous system, while syphilis would be considered as one of the most important etiologic factors in causing such a condition.” . . .

“The statistics of approximately 250 cases examined by me in association with Dr. Sachs show the presence of a positive Wassermann reaction, even in cases in which the syphilitic origin of the disease could not be traced; this indicates the value of the Wassermann reaction in the study of cardiac and vascular diseases.” . . .

“The finding of a positive reaction in a case of spontaneous myxedema may be considered an explanation of the etiology of the disease.” . . .

“I obtained a positive Wassermann reaction in two cases of scleroderma examined and the same results are reported by other investigators. I am inclined to think that ordinary scleroderma, like scleroderma neonatorum and all forms of athrepsia and cachexia, is many times a manifestation of hereditary syphilis. Further investigations of the relation between Wassermann reaction and the different cachexias will

probably make clear the obscure etiology of these diseases."

"It is undoubtedly true that a substance capable of producing in people working in mercury mines the classic syndrome of hydragyris—principally tremors, paralysis, hysteria, cachexia, etc.,—can not help but constitute also a deleterious factor for the organism if given in small repeated doses."

"Is the beneficial action of mercury as a therapeutic agent offset by its deleterious action as a metallic poison? It is a question that cannot help but puzzle the mind of the clinician. Have we ever tried to answer this question?"

In the *British Medical Journal*, London, July 24, 1909, is an article on "Wassermann Reaction in General Paralysis of Insane," by J. H. Smith and J. P. Candler. They examined a series of spinal fluids from cases of general paralysis and other diseases. The method employed was essentially that of Wassermann. They used ox blood corpuscles instead of sheep's. They examined 175 samples of cerebro-spinal fluid, derived from 127 individuals. Of these 127, 64 were cases of general paralysis, and in 59 or 92 per cent. a positive result was obtained, while in 5, or 8.8 per cent., the reaction was negative. These 64 cases include 7 from which the fluid was obtained only after death, and all of these gave positive results. Fluids from 63 cases in which the patients were not suffering from general paralysis were examined, in 32 of which the fluid was obtained during life. In no single instance was a positive reaction obtained. These cases include melancholia (9); senile mania (10), epilepsy ingitis; lues cerebri; tuberculous meningitis; alcoholism (3), disseminated sclerosis, dementia praecox—posthemorrhagic and other softenings; and a few fluids received for diagnosis of tuberculous or epidemic meningitis."

In the *Review of Neurology and Psychiatry* for March, 1909, is the following article on "Serum Diagnosis in Psychiatry," (Du Serodiagnostic en Psychiatrie), A. Marie, in *Rev. de Psychiat.* No. 10, 1908, p. 417, says, "A considerable amount of research on the bacteriology of the blood and cerebro-spinal fluid of the insane has been carried out in France. At Lille many workers have studied Wassermann's reaction, and it has been found that all syphilitics and general paralytics give a positive result. It has not been obtained in

dements, but it is present in some epileptics and frequently in those suffering from dementia praecox. Idiots and imbeciles also have given the reaction."

Fritz Lessen, in an article on, "Tabes and General Paralysis in the Light of Recent Research on Syphilis," in the *Berl. Klin. Woch.*, Sept. 28, 1908, says that every case of general paralysis he has examined gives a positive Wassermann's reaction, whereas in tabes exactly 50 per cent. of his cases only gave a positive result.

C. Muller, in the *Munich Med. Woch.*, 1908, says that he thinks that congenital syphilis exists in many cases of tabes and general paralysis in which the onset occurs at the usual time of life, but in which acquired syphilis cannot be proved. He records three cases of general paralysis, in one of which the existence of congenital syphilis was certain and in the others probable.

R. C. Matson, M. D., of Portland, Or., has applied the Wassermann test on 600 inmates of the Oregon State Insane Asylum; "20 per cent. gave positive reaction, while only 5 per cent. gave specific histories, and none presented visible or clinical manifestations; 15 per cent. of 51 cases of dementia praecox were positive; 16 per cent. of 151 cases of paranoias were positive; 25 per cent. of 40 cases of chronic mania were positive; 20 per cent. of 26 cases of chronic melancholia were positive; 20 per cent. of 62 cases of dementia were positive. General paralysis invariably gave positive reactions."

C. B. Ensor, M. D., of Baltimore, has applied the Wassermann test to 262 male patients at Mount Hope Retreat. A positive reaction in 58, or 22 per cent. A history of syphilis was given in only three per cent. out of the total, and only 14 per cent. of the patients showing a positive reaction admitted having syphilis, though most of them acknowledged exposure, and having had gonorrhoea; 86 per cent. of the patients with positive reactions thus denied having had syphilis was admitted where the reaction was negative in 2.6 per cent. of the total admissions.

In the *British Medical Journal*, January 28, 1905, in an article on, "Two Cases of General Paralysis Successfully Treated by Urotropin," Dr. N. F. Hardy reports two cases of paresis, one having tabetic symptoms, in which a marked improvement followed the use of urotropin. The histories given

are extremely brief and are not at all convincing to the skeptically inclined.

Dr. Maurice Craig, of the Bethlehem Hospital, told me, in 1905, that he had two cases of general paralysis which he considered recovered, under treatment which he described to me, together with Urotropine 10 gr. three times a day. Here he keeps all acute cases in separate rooms and there is no overcrowding.

CONCLUSIONS.

In observing the cases of General Paralysis and Tabes coming to the mental department of the Boston Dispensary, the following question has suggested itself: "Is tabes, in many cases, the result of mercurial treatment rather than the toxic effect of syphilis or some other poison?" It seems to me doubtful if the Wassermann test is going to prove as reliable a diagnostic help as we have been led to suppose. The same reaction that takes place in syphilis also can be seen in cases of metallic poisoning and in other cases where there is no history of syphilis and in some cases where no evidence of even hereditary syphilis can be obtained. Investigators are multiplying who claim that the reaction is not always positive in known cases of acquired or hereditary syphilis. In my opinion, we will, within a few years, have a serum which, if used in early cases of General Paralysis, will combat or abort the disease.

The proper treatment of the catatonic form of Dementia Praecox at the present time should include the administration of lecithin and thyroid when the patient is under forty-five and before leucocytosis has disappeared, or a partial thyroidectomy should be performed in selected cases. It is proven that leucocytosis is found in early stages of several forms of mental diseases, showing a bacterial or toxic invasion which nature is making an effort to overcome. The defeat of the lymphocytes resulting in a reduction of their numbers bodes ill to the patient and if the count remains low, especially in the second stage of catatonia, the prognosis is bad. If the count remains high during and after the second stage the physician can feel assured that nature has come to the rescue and he can look forward to the ultimate recovery of the patient if he assists nature by the proper treatment and care of his patient.

**PERSONAL EXPERIENCE WITH THE EHRLICH-HATA PREPARATION,
PARADIAMIDODIOXYARSENOBENZOL.**

BY

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(Read before the Philadelphia Academy of Medicine, January 15, 1911.)

THE recent revival in the treatment of syphilis by the Ehrlich-Hata preparation imbued me with a desire to have some knowledge of the subject. Accordingly, shortly after it was announced as having been perfected, I saw some of the first patients who were treated in this country by Fordyce and later by Wolbarst. This was made possible through the courtesy of Guiteras.

My experience with this drug is, of course, limited. From among the cases which I have injected, I will select four for your consideration, as well as, recite the history of four more observed in New York.

CASE 1. W. S., male; age 22; patient of Dr. Sloan. He presented a papulo-erosive lesion of usual size, situated on the reflected layer of the prepuce. It had been present about two weeks. Spirochetes were found. Wassermann reaction was positive. Accordingly I circumcised him and gave an injection of 0.6 grammes of Salvarsan at the West Philadelphia General Homœopathic Hospital on November 29th, injecting 10 C.C. of the prepared solution into each buttock. The pain was severe for twenty-four hours, temperature rose to 101 F. on the second day and remained so for several days. Arsenic was found in the urine twelve hours subsequently. He was dismissed from the hospital ten days after the injection. A few days ago a Wassermann reaction was made and proved negative. He has gained five pounds since the treatment.

CASE 2. W. J. C.; male; age 42; gumma of the right inguinal region. Five years ago he submitted to amputation of the penis for suspected carcinoma. One year ago he consulted me presenting an enormous infiltration in the right inguinal region. I made a most extensive dissection of these glands but he returned about three months ago with a broken down wound at the operation site, very suggestive of carcinomatous degeneration.

There was marked swelling of the right thigh and leg and

of the lower abdomen of the affected side. My observation of a case of suspected sarcoma of the jaw, which I had observed injected with "606" in New York led me to employ the Wassermann reaction in this case. It was positive. Accordingly he was injected on the same day as the previous case, using 0.6 grammes of Salvarsan. Pain was severe for forty-eight hours. Highest temperature 99 4-5 F. Arsenic was found in the urine twelve hours after the injection and for ten days subsequently.

The patient, however, is decidedly better. The wound is granulating and behaving nicely, and although the pseudo-elephantiasis has largely disappeared and the Wassermann reaction taken a few days ago was negative, yet he may require another injection to complete the healing process.

CASE 3. Male; age 32; patient of Dr. Barbier, of West Chester. Chancre of the reflected layer of the prepuce, paraphimosis marked papular syphilids of the face, body and palms. The paraphimosis and exanthem had been present for two days. Wassermann reaction was positive. 0.6 grammes of Salvarsan were given intragluteally on December 30th. The rise in temperature was never higher than 99 4-5, while the pulse was as high as 112 for the first thirty-six hours. Arsenic was found in the urine within twenty-four hours and for seven days subsequently. The rash has completely faded.

CASE 4. Male; age 35; diagnosis, chancre of the reflected layer of the prepuce, marked roseola. The Wassermann reaction was positive. Injection of 0.6 grammes of Salvarsan was given on December 30th. Pain was severe for the first twelve hours. The rise in temperature was never higher than 99 3-5 degrees, pulse 100. The rash entirely disappeared within six days. Arsenic was present in the urine within twenty-four hours after injection and a faint trace is still present.

I will now recite four of the most interesting cases observed in New York.

CASE 1 presented precocious tertiary skin lesions, covering various parts of the body, with broken down gummata and mouth and tongue ulcerations that made swallowing most difficult. Mercury and iodides had been resisted for two years. Within two weeks after the injection of 0.6 grammes of Salvarsan, the entire condition cleared up, and the patient is to-day practically well.

Case 2. Another case of a similar character with obstinate

pustules, some as large as a quarter all over the patient's body, mucous patches on the tongue and throat, left iritis and gummatous ulceration of the great toe, resisted all treatment for four months. An injection of 0.5 grammes of Salvarsan was given and in two weeks nearly all lesions had disappeared.

CASE 3. A case of tabes dorsalis, with Romberg, Westphal and Argyll-Robertson symptoms marked, and complete ptosis of the left eyelid, duration sixteen months and resisting all treatment, improved wonderfully. In twenty-four hours after the injection of 0.5 grammes of Salvarsan, the ptosis was relieved partially and a day later the recovery in this regard was complete. Vision also improved in a striking manner. The improvement continued steadily.

CASE 4. Man, very much emaciated, the whole body covered with papules and ulcerous syphilides; mucous patches in the mouth and tongue, and necrosis of the tonsils. The patient had received thirty injections of mercury without benefit. Was given 0.6 gm. In fifteen days all symptoms had disappeared, and the patient had gained twelve pounds. Wassermann remained positive.

This drug was handed to the profession in September, 1909, and according to Ehrlich, up to October 25th, 40,000 flasks of the preparation had been distributed to be used among colleagues. 10,000 cases were injected up to the first of November, 1910.

Chemical-physical properties: Salvarsan is a light, yellowish powder, which contains about thirty-four per cent. arsenic. It is contained in ampules which have been evacuated and then filled with an indefinite gas so as to protect it from oxidation.

The amount contained in a tube, 0.6 grammes is marked thereon. This constitutes the average dose. The amount of metallic arsenic in a moderate dose is about $2\frac{1}{2}$ grains.

Ehrlich has endeavored to produce a chemotherapeutic agent which would in its action approach the ideals obtained in immunotherapy, that is, one which would be highly destructive to the parasites and very slightly injurious to the host.

In Salvarsan, parasitotropism is high and organotropism is low. The arsenic is in such chemical combination that it is possible to administer an enormous quantity of it at one dose, thus perhaps securing a maximum parasitotropic effect, *i. e.*, accomplishing a sterilization of the patient's parasite-infected

body, and at the same time exerting a minimum of organotropic effect.

According to the degree to which the substance in practice proves itself completely parasitotropic will there be actual cures, and according to its organotropism there may be untoward results.

Indications: This remedy is indicated in all stages of syphilis, irrespective of sex or age, infants being included. The dose being graduated accordingly.

Salvarsan is indicated in the treatment of primary, secondary and tertiary syphilis and the accompanying symptoms. An important field for the employment of the remedy is afforded by cases of lues maligna and obstinate affections of the mucous membrane. Particularly favorable results have been obtained in those cases which were refractory to iodine and mercury.

Salvarsan has also been employed with remarkable success against the syphilis of pregnant and nursing women, as well as in hereditary lues. According to the present experience the medicament can only be used with a prospect of success in incipient tabes, early paralysis and epilepsy, of syphilitic origin, if the treatment is commenced immediately after the early symptoms appear, recurrent fever and indeed all spirillar diseases. It has also been tried on several cases of hereditary syphilis and pemphigus, which appeared to have been doomed to an early death. In all of these cases a cure was obtained.

Wechselmann says: "Considering the para-syphilitic manifestations, I have seen considerable improvement in a large number of cases with well established symptoms of tabes. In nearly all cases there was a prompt improvement of the lancinating pains, the uncertain gait improved, also, the bladder symptoms and difficult deglutition, as well as improvement of the general sensibility; two trophic ulcers on the ball of the big toe were healed."

Contra-indications: Quoting verbatim from a letter from Ehrlich, October 25th, 1910: "A contra-indication is known to be represented by severe affections of the nervous system: also diseases of the heart and blood vessels. It has been found that dangers to the eye do not exist, and that with the exception of optic nerve atrophy, the preparation can be employed in typical syphilitic affections of the eye, notably gummatous iritis."

Wechselmann says: "We may say that the first epoch in the

test of Ehrlich's new remedy has been passed. It is proven that its value is great and that it is often indispensable; its dangers are small, certainly less than was first thought. Further work with it and testing it patiently will show us its limitations. Viewed from every standpoint, the creation of chemotherapy, and through it, the discovery of this new remedy must be conceded to be one of the greatest achievements of science."

Professor Ehrlich says: "Now begins the second period which concerns the permanent action of the remedy. It goes without saying that the permanent action must depend upon a series of factors, namely:

"1. The size of the dose, and its mode of application.

"2. On the type of the disease.

"In a general way, the guarantee of a permanent success may be said to increase with the original force of the therapeutic effect, which is naturally strengthened by the size of the dose and the rapidity of the absorption.

"From this point of view the most efficient would seem to be:

"1. Intravenous injection of an alkaline much diluted solution.

"2. Intramuscular injection of the alkaline solution.

"Next in order follow:

"3. The very irritative acid solutions (mono and dichlor hydrate).

"4. Lastly, the so-called neutral emulsions (intramuscularly and subcutaneously).

"It has already been shown that the method which has probably been most extensively used, namely, the subcutaneous introduction of the neutral emulsion, is less competent in regard to the permanency of the effect, than the other methods. This may be referable to the intrinsic difficulty of preparing the emulsions in absolute uniformity and delicacy. Under these conditions the absorption of the remedy must be extremely variable, and it would seem to be especially unfavorable precisely in the case of subcutaneous application; at least this is suggested by the manifold complaints concerning persistent infiltrations, softening and necrosis. The extensive distribution and application of the emulsion is due to the fact that this injection, in contradiction to the alkaline and acid solutions, gives rise to no considerable pain in the first place, and that the immediate result, moreover, was usually entirely sat-

isfactory in the healing of the lesions. Presumably this is accounted for by the absorption of relatively small amounts of the remedy exerting a satisfactory curative effect, in view of the eminent efficiency of the preparation, so that the results at first leave nothing to be desired. But according to the news that I receive, it appears that the therapeutic effect in this method lacks the sufficient energy to obtain generally a destruction of the spirochetes, equal to the sterilization.

"In this respect, the intravenous injection evidently yields a better result of the treatment. The intravenous itself is very simple, as well as devoid of danger under proper selection of cases, and much pleasanter for the patient. Altogether over one thousand cases have already been treated.

"As to the intravenous dose; at least 0.3 but usually 0.4 to 0.5 gramme is employed by Alt, Schreiber; while Weintraub and others in given cases employ still larger doses up to 0.7 to 0.8 gramme.

"Iversen, moreover, administers, two or three days after the intravenous injection (average dose 0.5 gram.), the intramuscular deposit (0.3 to 0.5 gram.), so that the total quantity amounts to about 0.8 to 1.0 gram.

"It is extremely important that the intravenous injection can be repeated after two or three weeks, and this repetition is advisable when the curative effect of the first injection is not entirely complete, for example, when the lesions have failed to undergo a complete retrogression, or when a positive Wassermann reaction is still present at the end of four weeks. In these cases, the repeated injection is to serve as a "snapshot", (hit or miss) according to an expression used by Alt.

"Signs of over-irritability such as I had feared at first, have not as yet appeared, although in certain localities the intravenous injection has been repeated two or three times, or even four or five times in isolated instances. According to all I can learn, the method of intravenous injection seems to deserve preference, in regard to permanent action, above the previously predominating modes of application, especially the subcutaneous method."

Naturally, before the injection is given, a positive diagnosis of syphilis must be made, notwithstanding the fact that the clinical manifestations are present.

Technic: Each clinician adapts an individual technic (Alt,

Kromayer, Michaelis, Wechselmann, Fordyce, Schreiber, and Iversen).

The technic that seems the most effective and the simplest is a modification of Alt's.

With a glass pipette, 10 C.C. of hot distilled water are put into a glass mortar, having a capacity of 50 C.C.; to this is added Salvarsan, a little at a time, constantly stirring it with the pestle, until it is thoroughly dissolved. We now have a clear amber colored solution, strongly acid. With another pipette, we add a four per cent. solution of sodium hydrate in sterile distilled water, drop by drop, about 0.5 C.C. of the solution for each deci-gramme of Salvarsan used, constantly stirring with the pestle. Now a thick gelatinous mass forms, in which the powdered (Salvarsan) is precipitated; but by continuing to add the sodium hydrate solution, drop by drop, the precipitate disappears and another solution, quite clear, is now formed. This solution is strongly alkaline and if thus injected causes much pain. In order to diminish the alkalinity, and make the solution as nearly neutral (and consequently as painless) as possible, we add, drop by drop, through a third pipette, a one per cent. solution of acetic acid (in sterile water), constantly testing with litmuspaper. When the alkalinity is reduced to a minimum, sufficient distilled water is added to make 20 C.C., and of this solution, 10 C.C. is injected into each buttock. A piece of sterile gauze is now placed over the site of the injection and held in place with two pieces of adhesive plaster. The patient should lie face downward for about half an hour, and should then be put to bed and kept under careful observation for about a week.

Careful precautions are absolutely necessary and should never be omitted. All apparatus used for the injection should be thoroughly sterilized in the same manner as surgical instruments before an operation. This includes the mortar, and pestle, the syringe and needle, the pipettes and even the steel file with which the neck of the glass vial containing the powder is cut across. The neck of the vial should be cleansed with alcohol and ether. The skin of the buttocks should be thoroughly cleansed and rubbed with ether until it is red, immediately before the injection. This helps to anaesthetize the skin and renders the injection less painful.

Another important precaution to be observed is that the solution should be made up immediately before it is to be used,

at the bedside of the patient, or in the operating room, where preferably the injection should be given.

The operator should wash his hands carefully and wear a sterile gown. The needle employed should be the one suggested by Ehrlich.

Elimination: According to Iverson and to Treupel, the arsenic disappears from the urine after the intravenous method in about four days; after the subcutaneous injection in eight or ten days (Treupel); after the intramuscular method in about fourteen days (Iverson).

After effects: In many cases the injection is not followed by severe pain; in a few, however, the pain is very severe. In one case observed, morphia was required to control it.

An occasional feature following the injection of an infiltrate, similar to that which often follows the injection of an insoluble solution of mercury. Necrosis may, however, result, as reported by Wechselmann.

"When the drug is given intravenously Schreiber prepares it by adding from 10 to 20 C.C. sterile water and shaking until clear. This is followed by the addition of normal salt solution to make 100 C.C. Then for each 0.1 gramme of the drug he adds 0.7 C.C. normal caustic soda solution, and when the resulting precipitate is dissolved a quantity of physiological salt solution to make 150 to 250 C.C.. Iversen neutralizes the solution with one per cent. acetic acid and injects as much as one half litre."

A reactionary fever of 100 F. to 102 F. may arise. Some investigators report an exanthem following the injection. This is due to the rapid absorption of arsenic, and as it is thoroughly eliminated, this symptom rapidly passes off.

The effect of the injection upon the primary lesion is very prompt. It disappears in from one to two weeks following it. In most cases, improvement takes place in two or three days.

The secondary lesions disappear in about two weeks' time. In cases which have resisted mercury and iodides, the improvement is very slow.

Alt says: "For the nerve specialist and psychiatrist, the most important feature of the new Ehrlich-Hata remedy is to be found in the increased possibility of furnishing an effective prophylactic against the severest diseases of the nerves and the mind, namely, tabes and general paralysis.

Recurrence: Concerning the question of recurrence, the

proportion that recur is now not more than five per cent. of the total number of cases. In such cases, two injections are given and have proved very effective. In most cases, especially where the intravenous method was followed, several injections were sometimes necessary. In the majority of cases, the reaction changes the Wassermann from positive to negative when the spirochetes have been destroyed. If, however, they are not destroyed, the Wassermann reaction will not remain positive even though the clinical manifestations of the disease have disappeared. Herxheimer believes that three-fourths of all cases become negative within fifty days. Of course, the strength of the dose has an important bearing on the Wassermann.

"Recognizing fully the severe relapses observed by others, we are of the opinion that these relapses were probably due to the setting free of encapsulated deposits by the remedy. These observations have been made in the late stages of the cases treated with mercury, in which repeated courses of treatment have removed most of the spirochetes in the body. If this view is correct, then the future course of syphilis should be shortened. It is our opinion that all the spirochetes which come in contact with the remedy are destroyed. I therefore believe that we need not exceed the well established curative doses of 0.5 gm. to 0.6 gm for men and 0.45 gm. for women, which may be repeated in the infrequent relapses. Further experiences will have to teach us if the continued Wassermann reaction is the result of such latent encapsulated deposits and is a sufficient indication for re-injection.

"All of these observations prove that the dangers of hypersensitiveness to the remedy, as well as a possible loss of effect upon the spirochetes can be but slight; especially is this so in regard to the latter point, because the remaining spirochetes had probably not come in contact with the remedy."

The views of Ehrlich, Weichselmann and Alt, from which I have quoted liberally, suggest these conclusions.

Before administering Salvarsan, the following points are necessary:

1. A clinical and Wassermann diagnosis must be established.
2. The initial lesion, where practicable, should be excised before the injection of Salvarsan.
3. One month after the injection, a Wassermann should be

made and tried every month for five or six months. If it remains negative, the patient is cured.

4. If otherwise, the patient must be reinjected

VACCINE THERAPY IN GYNECOLOGY AND OBSTETRICS.—Drs. Williams, Cragin and Newell, constituting a committee, reported to the American Gynecological Society that the evidence at present available justified the following tentative conclusions concerning the value of vaccine therapy in gynecology and obstetrics:

1. Opsonins undoubtedly play a part in the production of active immunity. On the other hand, the determination of the opsonic index is technically very difficult, and is subject to such variations that it is not available as a diagnostic or prognostic guide, and even among trained bacteriologists there is considerable skepticism as to its practical value.

2. Immunization by means of vaccines is a well established prophylactic measure against certain infectious diseases, notably typhoid, cholera, plague, and dysentery. Vaccine therapy is undoubtedly a valuable remedial agent in local infections due to the tubercle bacillus or staphylococcus, less so in local infections due to other pathogenic bacteria while there is considerable doubt as to its efficiency in acute general infections.

3. In chronic gonorrhœal arthritis and urethritis it is a valuable adjunct to other treatment and occasionally alone may lead to cure. It appears to be useless in the acute infections, while it is more efficient in the treatment of the vulvovaginitis of children than any other means, but even here it does not always result in cure.

4. In infections of the urinary tract, especially to those due to the colon bacillus, it sometimes results in symptomatic cure, but rarely relieves the bacteriuria. The scanty reports concerning the pyelitis and the pyelonephritis of pregnancy indicated that vaccine therapy was no more efficient than the usual treatment by rest in bed and the administration of salol or urotropin, as in neither does the bacteriuria disappear until after the termination of pregnancy.

5. In certain cases of endometritis it appears to reinforce the curative influence of curetage. The reports concerning its use in pelvic inflammatory diseases are too scanty to justify conclusions, but it would seem that it may be of value only in chronic postoperative cases with sluggish fistula formation.

6. As the ordinary localized puerperal infections, irrespective of the nature of the offending bacteria, tend to spontaneous cure, the field of vaccine therapy is practically limited to acute general infections, whereas they unfortunately appear to be of little value, and the most that can be said from the reports thus far available is that their employment does no harm.—*Amer. Jr. Obs.*, Vol. 62, 97.

EDITORIAL

THE CRISIS IN AMERICAN MEDICINE.

THAT the medical profession in America is facing a critical period in its history is evident to every thinking practitioner of medicine. Only a few months have passed since the publication of the report of the Carnegie Foundation, in which the medical schools of this country were severely arraigned for turning out an enormous over production of "uneducated and ill-trained medical practitioners." It was indicated that this was done in absolute disregard of the public welfare, and purely and simply for the purpose of increasing the income of those connected with the medical colleges. Scarcely a half dozen of the medical institutions of the United States were credited with being at all equipped to give an up-to-date, scientific medical education, while the vast majority were condemned in no uncertain terms as being useless and even worse. To quote the words of Mr. Flexner, "neither of the Arkansas medical schools has a single redeeming feature." Of an Iowa medical school he said: "It is a disgrace to the State and should be summarily suppressed." Chicago is referred to as being, in respect to medical education, "the plague spot of the country."

It is not necessary for our purpose to give any further quotations from the report, but the above are only a few out of many similar views expressed. It is but natural that this report, coming as it does from a presumed disinterested organization, should receive serious attention from the educated laity among whom it has been widely disseminated in every possible way. Whatever may be its ultimate effect, there can be no question but that its immediate effect is to cast discredit on the qualifications of medical practitioners in general and to weaken the confidence of the public in all medical men.

Quite recently, from the pen of a member of the medical profession itself, Dr. Norman Barnesby, comes a popular book entitled "Medical Chaos and Crime," in which the most serious and positive accusations are made against the practices and

principles of the medical profession. The lay journals have been quick to take up this matter and to give it the widest publicity. It seems hardly credible that the statements made by Dr. Barnesby can come from a conscientious physician who has the welfare of his profession and of humanity at heart. But, whatever his character may be, there is no doubt but that his words will have a great effect among the laity, and unless an effort is made to bring to the attention of the public the true facts, the result is bound to be harmful to physicians both as individuals and as a collective body.

In order that our readers may understand the position taken by Dr. Barnesby we will quote a few extracts from his writings. He begins with an attack on medical ethics and pronounces the code of ethics as "inconsistent with any sense either of social or of moral responsibility." He intimates that thousands of lives are sacrificed yearly on what he terms "the altar of medical ethics." The official principles of ethics are so contrived, in his opinion, that the doctor who is possessed of any sense of honor is forced to stifle his humane impulses and at times connive at the grossest malpractice, while the incompetent bungler may take refuge under the code of his profession. To quote from a review of his book in one of our best known magazines: "The lacerations and dissection of human beings in this country by medical men whose fondness for the sight of blood grows to mania with time would have to be witnessed at first hand in order to be quite believed. No such carnival of butchery has ever been witnessed in any land or in any age since the downfall of the sanguinal empire of the Moguls. The operating tables of the United States drip with the blood of helpless sacrifices to the blind worship of the terrible god of medical science. The devotees of this religion are safe because they are licensed to glut their savage instinct by their diplomas, and for the most part because the physicians who know the worst are forced by the superstitions of the time to look on and shudder without betraying the criminals; hence the rise and spread of the successful conspiracy against American health and life." The hospitals next come in for a share of Dr. Barnesby's criticism. "They are in the main," he states, "controlled entirely by cliques. Unless one has the key to the forbidden door no one is ever able to enter the inner circle. The key represents money, influence, social standing, pressure, grit, perseverance, pull and moderate ability." He

also intimates that the grossest incompetency and malpractice prevails among a large number of practicing physicians. In support of this he cites a number of cases, among which is that of a young practitioner who, anxious to acquire experience, removed the arm of a woman who had sustained a fracture of the upper bone of the arm. Again, he reports the case of a doctor who opened the abdomen of one of his patients and removed what he supposed to be the appendix. A few months later the patient developed typical symptoms of appendicitis, and was operated on by another surgeon, who found a badly inflamed appendix which he removed. Upon showing this to the physician who performed the first operation, the doctor exclaimed: "By God! If that's her appendix, what did I take out." "This case," Dr. Barnesby says, "is by no means exceptional; there are many so-called surgeons who could not tell an appendix from an ovary."

It is hardly necessary for us to make any detailed comment on these statements. That they have been published by a physician, and that they will be accepted by a large proportion of the public as facts cannot be gainsaid. Their effect in undermining the confidence of the laity in those whom they have been accustomed to entrust with their health and their lives will no doubt be very decided.

Unfortunately, these are not the only critics with which the profession has to contend. There probably was never a time when irregular practitioners and charlatans of all sorts were more abundant. While they differ widely among themselves, all of these charlatans are united in their opposition to scientific practitioners of medicine, and when we realize that one group of these faddists have been able to enlist within its ranks more than half a million of wealthy and supposedly intelligent people in New England alone, we must recognize that they constitute a factor of no small importance.

The medical profession must awake to the seriousness of the condition by which they are confronted. Too long we have insisted that there was no need for action in this matter. Too long we have cried peace, peace, when there is no peace. One by one the traditional rights and privileges of physicians have been overthrown. The almost sacred respect with which the profession was viewed by the majority of the laity has passed away, and to-day we find that not only has the profession lost its former standing in the eyes of the public, but

the income of the doctor is rapidly diminishing while the cost of living is rapidly increasing. We are not one of those who believe that it is essential for the welfare of humanity that the profession of medicine, as developed along traditional lines, should continue to exist. We do not believe that any Divine aid will be miraculously extended in order to preserve what we are pleased to term the "regular licensed doctor." But we do believe that the great majority of the members of the medical profession are earnestly endeavoring to give their best efforts and thought for the benefit of humanity, and that the average doctor exhibits less of the commercial instinct in his relation to his patients than do men in almost any other walk of life. We also believe that earnest endeavors to rectify the abuses that exist among medical men and a determination to place the true facts before the public will tend to re-establish the confidence of the public in the integrity and in the ability of the medical profession. The first step in this direction we believe is to raise the standard of medical education, and every physician owes it to himself and to his profession to withdraw his support from those medical schools that are not putting forth every endeavor to adequately equip their graduates for the scientific practice of modern medicine. The next great need we believe to be the development among medical practitioners of a true spirit of fraternalism. There must be a real desire on the part of physicians to mutually co-operate in every proper and just way to advance the interests of their brother practitioners and of the art of medicine. And lastly, to repeat an editorial opinion recently expressed, we are convinced that nothing will do more to re-establish public confidence in the profession of medicine than a strict and rigid adherence to the truth under all circumstances. Physicians have been so long taught that lying was justifiable when it seemed necessary for the benefit of the patient that they have lost sight of the fact that this traditional teaching is a fallacy. In the long run, it is prejudicial both to the welfare of the patient, of the individual physician and of the profession as a whole. In fact, we are of the opinion that had the profession of medicine taken this stand years ago, we would be in a far different position to-day. On this ground alone we are unassailable. The medical profession is able to stand any fair test of its worth and honesty of purpose. The sooner we get down to a solid basis

of facts and dismiss from our minds the idea of establishing ourselves by cunningly devised fables the better it will be for the profession and for the public at large.

A NEW TEST OF THE VALUE OF DRUGS.

PROF. OLIVER S. HAINES has recently called our attention to a report of the Council of Pharmacy and Chemistry of the American Medical Association on "Worthless and Obsolescent Drugs." The object of this report appears to be to furnish some "unbiased and reliable information" about a certain class of drugs that are not to be found in the pharmacopœia. We note among the drugs included in this report such remedies as baptesia, cactus and dioscorea, and we regret to learn that this committee of laboratory experts have reached the conclusion that these drugs are not worthy of consideration as useful remedies.

In summing up the case against baptesia we are informed that many old school text-books "do not even mention wild indigo." Then follows this very enlightening information: "It is very evident that drugs possessing the extraordinary merits that have been claimed for wild indigo would not have remained unnoticed by the leading authorities of pharmacology and therapeutics, especially after its prolonged use in medicine. Owing, therefore, to the lack of substantial evidence of its usefulness, baptesia is not considered of sufficient importance to warrant its inclusion in the list of non-official drugs." The fact that this remedy has been used successfully by hundreds of practical physicians at the bedside for many years has no significance in the minds of these gentlemen. Such testimony is, in the opinion of the learned members of the Council, entirely outweighed by the fact that certain text-books on old school pharmacology "*do not even mention wild indigo.*"

In their report on cactus grandiflorus we note that they admit that many reputable practitioners have testified that some plants of the cactus family contain very active principles, and also that a number of clinicians have testified as to its value in cardiac diseases. On the other hand they affirm, "animal experimentation shows that the drug has little or no effect on the heart whatever," and that, "while there is some clinical

testimony as to its usefulness in functional diseases of the heart, the indications for its administration are at present too uncertain to afford a safe basis for recommending it."

As far as we are able to learn from this report the Council does not affirm that no curative results have been obtained by the administration of these remedies to the sick. They merely contend that because they are not lauded in the works of writers of the dominant school or failed to produce poisonous effects, in some instances, on animals in laboratory experiments, that they should not be utilized by physicians in the treatment of disease. Such reasoning does not appear to us to be either convincing or scientific, but as the authors of the report probably have very little occasion to come in contact with sick people in a professional capacity, it no doubt is very satisfactory for their purpose.

THE MENOPAUSE.—From an analysis of 200 cases Norris concludes that menstruation being dependent upon an ovarian secretion, it is fair to assume that the menopause is due to a change in the ovary. This theory is borne out by clinical facts, histological studies and animal experimentations. The generally accepted statement that the menopause is established at forty-two to forty-five is incorrect, and forty-six to forty-nine is nearer the actual age in the Eastern United States. In normal women the age at which the menopause appears is influenced by many factors. The menstrual function is influenced by child-bearing, marital relations, good nutrition, and hygiene, city life, and education, while converse conditions tend to an earlier menopause. Climate and race play a definite part in the age at which the menopause occurs, but are probably of a secondary importance in the United States. Hereditary influence is often a potent factor; in some families the menopause commonly occurs early. In the majority of cases, the chief feature of the menopause is not the cessation or diminution of bleeding, but the neuroses. These frequently antedate any change in the menstruation and may continue for six to eighteen months after the final cessation of bleeding. The actual bleeding is, however, the barometer of health. Normally the menopause is established without an increased loss of blood. When menorrhagia occurs an examination is indicated. Metrorrhagia should always be viewed with suspicion. In about 90% of absolutely healthy women the menopause occurs normally, but among average women fully 30% present symptoms which call for a careful physical and gynecological examination. All women at the menopause should be under the observation of a physician. Care of the cases at this time will result in the menopause being established with less discomfort to the patient, and many malignant neoplasms of the uterus will be diagnosed earlier than would otherwise have been the case.—*Amer. Jr. Obs.*, Vol. 61, 203.

CLINICAL DEPARTMENT

SURGICAL CLINIC.

BY

WM. B. VAN LENNEP, M. D., HAHNEMANN MEDICAL COLLEGE.

MOVABLE KIDNEY.

This patient, a young woman, has been referred to us by the medical department, where she has been under treatment for a general splanchnoptosis. She is sent to us because she has a tumor in the right loin, which can be felt when she stands up or turns on her left side, and I readily recognize it between the fingers of my two hands placed in front and back of the loin. When I examined her before anæsthesia this pressure produced a peculiar sickening sensation which is quite characteristic of the kidney. She suffered too a great deal from dragging in the loin and from backache, another strongly suggestive symptom of movable kidney. While anchoring the kidney will not cure the sagging of the other organs, it is looked upon as the first step in the treatment of splanchnoptosis. Movable kidney is met with most frequently in women, and the corset has been blamed for its development. It also occurs in those who have rapidly lost flesh, the perinephric fat being one of the storehouses of the body; or in those in whom intra-abdominal pressure has been suddenly relaxed, as after childbirth, the withdrawal of ascitic fluid, or the removal of a large tumor. Straining, either by reaching up or lifting, has also been known to induce it. The right kidney seems to be the one most frequently affected; it is somewhat lower than its fellow, carrying the bulk of the liver, and has a shallower kidney pouch; the vessels too are longer. We use the term "movable kidney" in distinction with "floating kidney" to distinguish an acquired, retroperitoneal condition from a congenital one, in which the organ has a mesonephron and is intra-abdominal, just like the intestine.

Our operation was first suggested by Edebohls: An oblique incision, starting from the tip of the twelfth rib and outside the sheath of the erecto-spinae muscle, is carried downward and inward toward the anterior superior spine of the ilium. Going through the deep fascia, we come upon the fibres of the latissimus dorsi muscle, which run in a direction forming an "X" with our incision. We split these fibres, and on retracting them, the opening becomes a lozenge-shaped one. Right here we should be on the look out for the ilio-hypogastric and perhaps the ilio-inguinal nerve and pull them out of harm's way. If injured, the patient is apt to suffer from troublesome pain in the buttock or above the groin. We now come upon a thin fibrous membrane and on nicking this, expose a mass of fat which at first gives the impression that we have opened the peritoneum and that the omentum is presenting. This, however, is perirenal fat, and on tearing through it we can see the kidney rising and falling with respiration. The kidney is easily drawn out upon the back, when the capsule

is split from end to end and peeled off and everted well down to the pelvis. Two loops of catgut are passed through the capsule on either side, to keep it everted. I now recognize the quadratus lumborum muscle, its fibres running vertically from the iliac crest to the rib, and tear off its fibrous sheath, which gives us on the one hand a raw kidney surface and, on the other, a raw muscle surface. These two raw surfaces can be drawn together by means of the four everting loops of catgut in the capsule, which are passed through the muscle and tied on the outside. The kidney, of course, is lower than it should be normally, but it is firmly fixed, and we have had no relapses in this clinic. The wound is closed layer by layer without drainage.

PROSTATIC HYPERTROPHY.

This man, sixty-five years of age, gives the following history: Frequent nocturnal micturition, progressive difficulty in urinating, with inability to throw a stream. As a result of constipation or sudden chilling, this difficulty may be markedly aggravated or an acute retention may develop. In the palliative treatment these complications should be carefully guarded against. Remember that all cases of prostatic hypertrophy do not call for operative interference, a certain degree of enlargement being found in all men after the age of fifty. As a result of the obstruction there gradually develops an eccentric hypertrophy of the bladder, with the formation of a postprostatic pouch in which there is always a certain amount of residual urine. This may undergo decomposition, setting up a cystitis which in turn may result in an ascending infection, while the obstruction will lead to "back telling" with associated eccentric hypertrophy or dilatation of the ureters, dilatation of the kidney pelvis with its infundibula and calyces and atrophy of the kidney substance. These cases require treatment when it becomes necessary for them to pass urine more than twice during the night and when there are more than two ounces of residual urine. We may either institute "catheter life," the rule being to catheterize once in every twenty-four hours for each four ounces of residual urine, or we may remove the obstruction by shelling out the entire gland. The danger of the former is dirty instrumentation, and unless the patient can be trusted to carry out all the rules of surgical asepsis, it is better not to advise it, the safer procedure being operation.

The technique of the operation is as follows: We cut down on the symphysis pubis after placing the patient in the Trendelenburg position to carry out of harm's way the fold of peritoneum which otherwise would be found immediately behind it. If necessary we may nick the pyramideles to give more working room; then peeling up the peritoneum and fat in the prævesical space from the posterior surface of the pubic bone, the bladder well is exposed and opened on a staff which is grooved on its upper surface, avoiding the plexus of veins always found in this region. This is done after thoroughly washing the bladder and moderately dilating it, but relying mostly on the staff as a guide. The upper angle of the wound in the bladder is controlled by a guy rope of celluloid thread, while its edges are stitched to the muscle-sheath by two sutures. We

have given up the use of the inlying tube, packing the empty prostatic cavity with iodoform gauze to control bleeding if necessary. It has been proven by experience that the only continuous drainage of the bladder is through the suprapubic wound, drainage by the perineum being only possible through the inlying catheter which can only be tolerated for a limited period. The patient is placed in the moderate Fowler position with the head of the bed elevated and the Murphy enteroclysis or continuous rectal drip of saline instituted. All these old men pass through a uræmic crisis after this rather sudden relief from the backtelling of prostatic obstruction. Some will pass through a stage of uræmic delirium lasting, at times, for weeks before it clears up. In others this will deepen into a coma with suppression and death, but in every one of these cases this is the principal danger. Prævesical infiltration of urine and the consequent sepsis so much dreaded in the past are no longer to be feared. Instead of withholding fluids as in abdominal cases, we encourage the patient to drink plenty of water, milk, etc., as soon as possible, provided the nausea of uræmia does not preclude the same. If fluids are ejected we can still resort to hypodermoclysis and intravenous saline infusion.

ECTOPIA TESTIS.

Here is a lad of ten years. The first thing we notice is that the scrotum is empty on the right side. The general term descriptive of this condition is *ectopia testis*, if neither is present, he is said to be a cryptorchid, if one, a monorchid. To understand the various malpositions of the testicle, we must recall the embryological development of the organ. Lying originally just below the kidney, it is gradually drawn down into the scrotum by the gubernaculum testis; this consists of three bundles, the middle bundle going to the bottom of the scrotum, the outer to Poupart's ligament and the inner to the pubes and the rectus sheath. If arrested, therefore, in its descent, we may find it either in the abdominal cavity, in the inguinal canal, or just outside of the external inguinal ring; rarely in the femoral canal, perineum, or on the symphysis pubes. Since the peritoneal pouch which is to form the tunica vaginal testis precedes the testicle and does not close until after the latter has descended, we can understand why hernia is necessarily associated. In our patient the testicle is arrested in the inguinal canal, where we can palpate a somewhat movable, small, firm body. Occasionally the ectopy is pushed down by the hernia behind it, and it is therefore advisable at times not to interfere too early, treating the hernia after it has pushed down the ectopy. If this is not the result, it becomes necessary to operate because of the danger of trauma if the testicle is exposed and, according to some, of malignant degeneration, and because the testicle is sterile in any of its malpositions. If it can be anchored to the bottom of the scrotum, it will perform its proper function. These ectopic testes not infrequently become twisted with consequent gangrene. The symptoms closely resemble those of bowel obstruction. In one case where the diagnosis of appendicitis had been made, I was led to a correct opinion by finding the right scrotum empty and noticing that the patient was suffering from a urethral discharge. The testicle was

found in the abdomen just above the internal ring and presented the usual appearance of the gonorrheal epididymitis.

We form a new tunica vaginalis testis by dividing the sac and stitching the lower segment over the testicle. We next free the balance of the sac up to the internal ring, after splitting the aponeurosis of the external oblique, parallel to and about an inch above Poupart's ligament and dissecting it up and down, forming two flaps. We then carry the cord up against the fibres of the internal oblique as they arch over it, drawing these same fibres down to the under surface of Poupart's ligament, outside of the cord: this we call the buttress stitch. Raising the cord we now suture, under it, the fibres of the internal oblique and conjoined tendon to the under surface of Poupart's ligament until the defect in the abdominal wall is entirely closed. Laying the cord on this bed, so to speak, we draw together over it the flaps we have fashioned from the aponeurosis of the external oblique. It only remains to close the superficial wound with the Michel clips. The anchor stitch in the bottom of the scrotum is usually left in place for ten days or two weeks, or until it cuts loose from the testicle, if there is much tension.

PEDIATRIC CLINIC.

BY

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ACTIVE AND LATENT TUBERCULOSIS IN CHILDHOOD.

The child before us is four years old, and to all outward appearances is in good health. He has been brought to us for an acute affection of the mucous membrane of the mouth which proves to be a mild, subsiding attack of aphthous stomatitis. There is, however, another condition present, namely, a chronic affection of the mucous membrane of the tongue. Inspection of this organ shows us a peculiar configuration of its surface produced by the heaping-up of proliferated epithelial cells in patches more or less circular in outline, together with areas in which the mucosa is denuded of its epithelium. Where the cells have proliferated the color is a dull gray because the epithelium interferes with the transparency of the membrane, while in the denuded areas the color is of a deeper pink than in the unaffected portions of the tongue. These deposits come and go, their outline changing from day to day and the name "geographical tongue" has been aptly applied to the condition.

As to the etiology, nothing definite is known. In the case of this child it has existed ever since he was one year old, coming and going at irregular intervals. One of the most recent views regarding its etiology is that it is a manifestation of the "exudative diathesis of Czerny." This diathesis shows itself early in infancy, and one of its characteristics is a tendency to the development of skin eruptions, the skin reacting with an inflammatory process to irritations which in normal children would scarcely cause a response. Eosinophilia is also associated with this diathesis. Czerny believes that when these children become infected with tuberculosis they develop that clinical picture which we call scrofula.

Now let us see whether this child presents any of the evidences of

scrofula. His family history is negative. He has had measles two years ago, but no other previous acute illnesses of any moment. You will notice that he is well nourished, but his color is not rugged and his skin is harsh and dry and the cheeks are reddened. The skin at this site slightly infiltrated. He is subject to cold in the head, although there is no evidence of adenoids, and at the present time the upper lip is a little excoriated. He is certainly not of the fine delicate build that you have observed in other children in this clinic whom we described to you as presenting the tubercular diathesis. There are a few slightly enlarged lymphatic glands that can be felt at the angle of the jaw, but the physical examination of the chest shows nothing abnormal. Now if you will look at his forearm you will see a papule one-quarter of an inch in diameter which is bright red in color and gradually fades out into the normal surrounding skin. This is an artificial skin lesion which we have induced in the child by applying a drop of Koch's old tuberculin to an abrasion at this site; in other words, a vaccination with tuberculin. This was done yesterday, and to-day we have the reaction.

The significance of the reaction is that the subject who presents it has been infected with tuberculosis and that his tissues, which are now hypersensitive to the poison of tuberculosis, are reacting against the inoculation. It means that the infected organism contains specific antibodies against tuberculosis; these antibodies are contained not only in the blood, but also in the fluids and tissues of the entire body. These antibodies attack the bacilli or tuberculin at the point of inoculation and destroy it by a kind of digestive process. The clinical significance of the reaction is of great importance, for it distinctly tells us that the patient has been infected at some previous time with tubercle bacilli, and because in the case of children the presumption is that the infection has been a recent one its diagnostic value is inestimable. However, every child that responds to this test, which is named after von Pirquet, who first described it and introduced it into clinical medicine, is not necessarily actively, or clinically tubercular. I have seen numerous children such as the boy before you who gave a distinct reaction and who during the last two years give no clinical evidence of having tuberculosis. The presumptive evidence is that in this class of cases the tuberculosis is purely glandular and the commonest site for such an infection is the bronchial glands. When an infant responds to the cutaneous test the prognosis is more unfavorable because at this age tuberculosis is almost always widespread in its distribution, rarely confining itself to one or more lymphatic glands.

I will now give you the history of another case of tuberculosis in a boy ten years of age. B. Z., ten years old, family history negative; has had no previous serious illnesses, but two years ago was operated for enlarged adenoids and tonsils, from which he made a good recovery and was for the time being much benefited. Last summer he began to lose strength and became anemic. Late in the summer he caught a bad cold and has had a cough ever since. He was seen October 17th, complained of feeling tired, and at that time it was discovered that he was running a temperature of 99 in the A. M. and 100.4 in the evening. The pulse was rapid. He was put to bed, and a few days later the spleen was found to be moderately enlarged. The temperature continued to vary between 100.4 and 101 in

spite of rest, and a Widal test of the blood for typhoid fever was made and proved negative. The v. Pirquet test was also made at that time and was negative. The physical signs in the lungs were negative, but there was dulness over the spinous processes of the dorsal vertebrae from the first to the fourth; this was associated with bronchial expiration and whispering broncophony over this region suggestive of enlargement of the bronchial glands. At the present time, December 1st, he gives a marked cutaneous reaction, his fever continues to rise to 100 in the evening and the pulse is more rapid than last month (130 per minute). The spleen is still enlarged and dulness posteriorly in the chest may now be distinctly detected in the interscapular region on the right side and over the right apex. Over this area bronchial expiration and broncophony may be heard and anteriorly over the right upper lobe the respiration is harsh and interrupted as far as the third rib.

In this case we are confronted with an active, advancing tubercular process which has apparently originated in the bronchial glands whence the infection has spread to the lungs. No doubt the v. Pirquet test was negative in the beginning of the infection because there had not yet elapsed sufficient time for the development of antibodies, which, however, were present in sufficient number to give a strong reaction with the subsequent inoculation six weeks later.

CONGENITAL HEART DISEASE.

The next case which I will show you is one of heart disease of an uncommon type. Rose B., aet. seven years. Family history negative; has escaped the usual diseases of childhood. During the last two years has had several attacks of severe epistaxis occurring spontaneously. She has enlarged tonsils and was sent to the hospital to be operated for this condition. On being examined by the throat specialists of the hospital it was discovered that she had a cardiac murmur and she was then referred to the medical department. Some of you have already seen this patient in the children's ward with Dr. Redman and myself and are acquainted with the physical signs present.

I should like you to note first of all the fact that this child is undersized and that her color is pale, in fact sub-cyanotic. She has never had attacks of actual cyanosis; on the other hand, she does not present the flushed face which some cardiac cases present. There is no clubbing of the finger nails. The apex can be palpated in the mammary line, but this does not signify a considerable degree of displacement in a child of her age. Palpation reveals a distinct, fine thrill over the base of the heart. The percussion outline shows a moderate hypertrophy of the heart to the left and considerable to the right, the right border reaching to the parasternal line in the fourth interspace. There is also marked dulness over the sternum at the base of the heart reaching to the second rib. The x-ray plate before you verifies these percussion borders and shows nicely the hypertrophy of the right ventricle and the shadow at the base of the heart.

On auscultation a loud systolic murmur is heard over the entire cardiac area, becoming most intense as we approach the aortic region. It is also transmitted into the carotids. The aortic second sound is slightly louder than the pulmonary second.

Evidently we are confronted with an aortic rather than with a mitral lesion. There is no history of a previous attack of rheumatism, chorea or some other infection which might have caused a mitral lesion and furthermore the physical signs do not correspond with those characteristic of mitral disease. Aortic stenosis produces a systolic murmur heard loudest



over the aortic region and transmitted into the carotids, but aortic disease is very rare in childhood, being the result of a degenerative process or of syphilis rather than endocarditis. With aortic disease we expect to find marked hypertrophy of the left ventricle, and as that is not present and as an etiologic factor is also absent, we must exclude aortic stenosis.

Aneurism of the aorta produces a thrill and dulness over the base of the heart, but the diastolic shock of aneurism is absent and there are no symptoms of mediastinal pressure such as we would expect to find in this condition. Furthermore, aortic aneurism is practically unknown in childhood. We are forced therefore to look to another cause for these symptoms and the most plausible condition to suspect is a congenital defect.

The congenital heart affection which produces both the clinical symptoms and the physical signs presented by this case is open ductus arteriosus. With this condition we do not see the marked cyanosis characteristic of other congenital lesions, notably pulmonary stenosis, and we especially find dilatation of the great vessels at the base of the heart (as shown in the skiagram of this case), together with a loud systolic murmur and thrill with maximum intensity over the base of the heart. The absence of a history of previous endocarditis also speaks strongly in favor of the congenital origin of this affection.

THE WASSERMANN REACTION IN THE DIAGNOSIS OF SYPHILIS.—Dr. D. M. Kaplin, in the *Journal of the American Medical Association*, presents a very carefully prepared article in which he gives his impressions of the value of the Wassermann reaction from a study of over 3,200 cases. He states that the impression he has received from almost two years' work with this reaction, and the benefits that physicians and patients derive from its application, is that the value of the Wassermann test for diagnosis and therapy has been greatly over-rated. He does not believe that the reaction is sufficiently accurate to enable the practicing physician to rely implicitly on the outcome of the Wassermann test. He summarizes his conclusions as follows:

1. When a serum is submitted for diagnosis the laboratory report should read "negative" or "positive." No qualifications as to degree are necessary.

2. For diagnostic and therapeutic purposes the laboratory report should always be collated with clinical findings.

3. Negative reports are of value in therapy.

4. Treatment should be stopped for four to six months after the patient becomes clinically and serologically normal and at the end of this period the test should be repeated.

5. All patients cured of syphilis ought to have for preventive purposes a test performed twice a year.

6. Any reappearance of the reaction even in traces is to be dealt with as under Paragraph 4.

7. Some patients who have had syphilis never lose the positive reaction in spite of any therapy.

8. A negative report obtained on a serum from a suspicious case should defer treatment until the course of the disease decides the etiology, provided there is no danger in delaying treatment.

9. With a positive report one must not lose sight of the possibility of another disease being present besides syphilis.

10. In my experience advanced scleroderma and old leprosy are more positive than old syphilis, quantitatively and qualitatively.

11. In active tabes 88 per cent. and in quiescent tabes 44 per cent. of positive reactions were obtained.

GLEANINGS

PARATYPHOID FEVER.—Over 300 cases of this affection have been reported in literature, which have followed a course resembling that of typhoid fever, but in which the causal element was found not to be the *Bacillus typhosus*. Archard, in 1896, described the first two cases of paratyphoid fever, and isolated a bacterium differing in many ways from the typhoid bacillus. In rapid succession cases were reported, and the bacillus studied by Widal, Cushing, Jurgens, and others.

The onset of this disease is generally of brief duration and somewhat abrupt. The patient who was in former good health is soon complaining of various muscular and so-called bone pains. Stiffness of the neck has been a very prominent symptom in this series of cases. Chills are not common, but the occurrence of chilly sensations and more or less profuse sweating are not infrequent. Sore throat, severe headache, pain in the "pit of the stomach" are oftentimes present. This short prodromal period of from three to five days' duration, contrasts markedly with the long drawn, insidious onset of typhoid fever with its malaise, anorexia, and insomnia.

The general symptoms of the disease are of early advent. The patient may present an anxious and flushed appearance for the first few days and stupidity may exist in a mild form, but in the writer's cases these signs soon disappeared, and the patients become extremely bright and placid, troubled not in the least with insomnia. In severe cases, great dullness of intellect and delirium may occur. The headache of the prodromal period, which is rather a pain, cephalalgia, than an ache, soon lessens and disappears. The *alimentary symptoms* are to a certain extent characteristic. The tongue, which in typhoid fever is early swollen, thickly coated, and tremulous and later dry and fissured, in this disease remains moist throughout, is of normal size and only lightly coated. Sordes do not tend to collect. The appetite is usually blunted in the early stage but rapidly returns, even before the fever had desisted. Redness of the pharynx and painful swallowing which may have been pronounced in the prodromal state become less and pass away. Nausea and vomiting are of frequent occurrence in the early days of the disease. The intestinal condition is quite typical. Although diarrhoea does occur, it is not the rule, and constipation is much more frequent. In the writer's cases the evacuation of formed faeces throughout the course of the disease was characteristic. Tympanites of great degree is not common, although slight abdominal distention does occur, but as a rule is not troublesome. The spleen is usually enlarged, even if not palpable it may be revealed by percussion. The liver is found enlarged in great percentage of cases. Intestinal hemorrhage is not frequently met with.

The febrile manifestation is extremely characteristic. High fever may occur in the early stage, and the fastigium is rapidly reached. The diurnal remission of temperature is a very pronounced and indicative sign. From

the beginning of the disease the fever may remit daily, very often to normal.

The skin may present a roseolar eruption which occasionally is typhoid-like or more often as a dark, blotchy lesion with tendency toward confluence. Sweating may be marked in the early stage. The pulse rate is slow, compared to the degree of fever present, and may take on a dicrotic quality.

As to prognosis, the disease is shorter and milder than typhoid fever as a rule. The mortality in reported cases has been about three per cent.

Paratyphoid fever often simulates typhoid so closely that a differential diagnosis is difficult. There are, however, certain points of dissimilarity. The abrupt onset, the short prodromal period, the marked remission of temperature, the blotchy eruption, the moist tongue, and the bowel condition of paratyphoid fever will greatly aid in the diagnosis.

The surety of diagnosis must, notwithstanding, rest on bacteriological methods. The repeated absence of the Grueber-Widal reaction is of utmost importance. Gwyn has said that this reaction is found in 99.6 per cent. of all patients suffering from typhoid fever; hence its constant non-appearance or its occurrence only in low dilution (1 to 10 or 1 to 5), in a typhoidlike disease is very suggestive of paratyphoid fever. The finding of a paratyphoid agglutination is typical and may occur in dilution as high as 1 to 6,000. The most conclusive evidence, however, is the isolation of the bacillus from the patient's blood.

Very few instances of necropsic examinations are recorded, therefore our knowledge of the morbid anatomy of this affection is limited and very incomplete. Intestinal lesions have been described in the form of slight ulceration, but the Peyer's patch and lymphatic changes were wanting. Splenic enlargement was the rule.

Regarding treatment there is little to be said, except that it should be rational and conducted on the same lines as in typhoid fever, as, rest in bed, liquid diet, antipyretic measures, and the endeavor to prevent the occurrence of complications, the thorough disinfection of all excreta.

EHRLICH'S "606" IN SYPHILIS.—Fischer (*Deutsche Med. Wochenschrift*) states that Buschke, to whom he is assistant, declares that his extensive experience with the new remedy in the dermatologic department of the Rudolf Virchow hospital at Berlin has convinced him that it should be reserved exclusively for patients refractory to mercury. He has also encountered a few patients refractory to "606," and prolonged observation is showing that even when the primary manifestations have subsided under its influence, general symptoms are liable to develop later. The lesions which subside so rapidly under the "606," he continues, are the kinds which promptly subside under any method of treatment or without it, the indurated chancres being more slowly influenced. In one such case the chancre was found nearly the same size and swarming with spirochetes two months after the injection of the usual dose of "606," while the patient has been tormented since with extremely frequent and severe colic pains, never observed before, and which Buschke ascribes to the arsenic. He says that no one seems to appreciate how rapidly syphilids may subside under ordinary treatment; clinicians are surprised by the rapidity of the

action of the "606" when, if they will keep records of the cases in which mercury alone was used, they will frequently find that the syphilids disappear as fast or even faster under mercury. In a recent case a much debilitated man had numerous syphilitic ulcerations over his body, especially on the legs, with papulous syphilids on the back, and positive Wassermann reaction. Under salves and baths the ulcerations all healed over in twelve days and then mercury was commenced, under which the papulous syphilids soon healed. The man gained six pounds in the three weeks. The tonic effects of the care and food in the hospitals have often an amazingly favorable action on the general health without any drugs or under mercurial treatment. But the "606" has displayed great efficacy in the severe and extensive syphilis refractory to mercury, and this seems to be the special field of the new drug, although it may fail even here, as in a case Fischer has previously reported.

Syphilis of the central nervous system also seems in certain cases to be amenable to the new drug, but special caution is required here as cases have been reported in which no benefit or actual harm has followed its use; even fatalities have been reported. On the other hand, calomel renders good service in these cases, especially in the recent cases. Recurrences after "606" have been frequently reported, but the question now is as to whether the recurrences are exceptionally mild or not. In four cases in Fischer's experience the recurrences were unusually early and unusually intense; in one case the symptoms indicated meningeal irritation. In a fifth case the symptoms suggested arsenic intoxication, but they might have been explained by some incipient syphilitic cerebrospinal trouble, but other symptoms suggested hysteria and an epileptiform seizure and weakness of the right leg further complicated matters in respect to the share of the "606" in the syndrome. No methyl alcohol had been used in injecting the "606;" Rille and Spiethoff have also reported epileptiform seizures after its injection. In five other cases in which "606" had been injected on account of skin lesions, recurrence was observed taking the form of serious specific iritis in four and of neurochorioretinitis in the other. He knows of a number of similar cases observed by others, the recurring manifestations developing in the eyes. There was no predisposition on the part of the eyes in any of these five cases, ophthalmologic examination before the injection of "606" having shown normal conditions. He thinks that the new remedy probably has a special affinity for nerve tissue, and although it does not directly injure the nerve, like atoxyl and arsacetin, yet it provides a place of lessened resistance and here the syphilitic virus preferably locates—a syphilis *ex trauma*.

Rille and Pinkus have recently reported three cases of jaundice following administration of "606." The local necrosis sometimes observed is evidently of purely chemical nature; it is exceptionally torpid, and operative removal of the necrotic tissue is practically impossible as the necrosis goes very deep, the chemical action extending far into the interstices in the tissues. The breast is a particularly unfavorable point for the injection on this account; in one patient the necrosis in the breast extends down and into the ribs and there is danger of perforation of the pleura. Only a part of the arsenic seems to be taken up into the tissues; the rest is slowly, possibly intermittently eliminated, and these factors vary in differ-

ent individuals so that it is unusually difficult to determine the tolerated dose. Fully as good therapeutic results have been observed with small as with large doses. Alt and Hoffmann have reported severe symptoms on the part of the heart after the injection of the new drug, and Fischer reports another grave case of the kind. The patient was a young man, healthy until infected with syphilis early in 1910.—*Jour. A. M. A.*

VITILIGO IRIDIS.—Professor Fuchs in a lecture called attention to a rather uncommon appearance of the iris—an anomaly characterized by the distribution of small white or grayish-white spots on the anterior surface of the iris, which condition, termed vitiligo iridis, he considered almost pathognomonic of a previous attack of variola. The author has seen this anomaly twice, both times in colored patients. The first patient, a healthy young colored woman 27 years of age, consulted the eye dispensary for relief of asthenopic symptoms. In the right brown iris there were seen from eight to ten greyish-white, circular and irregular ovoid spots, about $\frac{1}{2}$ MM. in diameter, and principally located in the ciliary zone. In the left iris there were about six similar non-pigmented areas, most of these, too, being present in the ciliary zone of the iris. The iris otherwise presented normal appearances and reacted freely to the light stimulus. The media were clear and there was no visible pigment disturbance in the fundus. The patient had measles thirteen years ago; variola seven years ago; no history of previous ocular disease could be elicited. The second patient was a 60-year-old colored man. In both eyes there were signs of a chronic iridocyclitis, vision in right eye being reduced to 1-60; in left to 6-20. In the lower portion of the left brown iris were four greyish white spots about $\frac{1}{2}$ MM. in diameter, none being discovered in the right eye. The patient had variola twenty-seven years ago and possibly luetic infection seven years ago.

There was no question about either patient having had variola, well-marked pitting being present in both cases. In both cases there was no atrophy of the iris tissue, as is sometimes seen in association with iridis or glaucoma. The spots appeared to be merely due to an absence or bleaching of the stroma pigment, the adjoining iris tissue being unchanged at least to gross inspection. Some of the lesions appeared to be in a plane slightly behind the anterior surface of the iris. Transillumination showed the pigment layer to be intact.—Dr. A. C. Sautler, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

EYE SYMPTOMS IN DIABETES.—The most common eye complication of diabetes is cataract. Diabetes should always be thought of when opacity of the lens develops in both eyes in middle life, progresses steadily and sometimes rapidly, and is not accounted for by pre-existing disease of the eye or trauma. In most instances the opacity is the same as in senile cataract, but in a small minority it appears characteristic of diabetes in the form of diffuse bluish haze of the anterior layer of the lens with well-defined radiating lines indicative of the segmental arrangement of the lens fibers. The progress of cataract can be checked if the disease is

controllable by diet. When this is not the case the opacity continues to increase steadily, though not always at a uniform rate.

While diabetic cataracts have been removed satisfactorily by all ophthalmic surgeons, some have been impressed by the greater danger of the operation of diabetics. A large statistic record last year by Uththoff has not borne out this impression. His results were not inferior to the average obtained in non-diabetic subjects, but he admits the greater probability of delayed healing caused by transient iritis. In the discussion at the Heidelberg Ophthalmic Society, following Uththoff's paper, most operators agreed with the good prognosis of the operation, even when sugar is present and no dietary restriction has been adopted. It is, however, common surgical experience that diabetic patients are always endangered by general narcosis, particularly from chloroform.—Dr. H. Gradle, *Journal of Ophthalmol. and Oto-laryngol.*

WILLIAM SPENCER, M. D.

GONORRHEAL IRITIS SUCCESSFULLY TREATED BY GONOCOCCUS VACCINES.—A case of gonorrheal iritis in a young colored man which showed marked improvement in symptoms following an injection of a dose of 100 million organisms. The following day the pain and photophobia had greatly diminished and the swollen joints were less tender. Three days later a similar injection was given, and on the following day his subjective symptoms had entirely disappeared, the iris had resumed its normal appearance and the circum-corneal injection was gone. The pupil, however, remained undilated. A third injection was given, after an interval of four days, so that he received in the three injections 300 million organisms. No subsequent symptoms appeared, and at the end of three weeks he was discharged; the eye was quiet, and the joints while not painful or swollen, were somewhat stiff.

The effect of the treatment was thus very striking, and no untoward results appeared at any time from the injections. There did not appear to be any primary exacerbation of the local conditions, or general reaction, as have been reported elsewhere, and no abscess occurred at the site of inoculation. The development of the treatment of various bacterial diseases by the use of sera or vaccines obtained from the organisms in question has been one of the notable advances in medicine during the past decade, and the literature on the subject has grown to formidable proportions. In no infection have the results been more at variance than in that produced by the gonococcus. This is probably due, in part, to the confusion as to whether the serum or vaccine was used, and partly to the unreliability of some of the preparations employed. The fact that relatively few cases of iritis have been reported as treated by vaccines would seem to indicate that the ophthalmologists have been too conservative and have not taken advantage of the newer methods of treatment of the bacterial infections, and this should stimulate us to more active work along these lines, particularly in combating the gonococcus, which can no longer be considered as causing a purely local process, but one which is followed by many and far-reaching complications, which require both local and constitutional treatment.—Dr. E. A. Shumway, *Annals of Ophthalmology.*

WILLIAM SPENCER, M. D.

MECHANISM OF THE THIRD STAGE OF LABOR.—Harper (Albany) says the placenta is commonly delivered as an inverted cone, the fetal surface presenting; the membranes follow, reversed. This may be called the normal mechanism because it occurs in the majority of cases; it may be explained by the action of the uterine forces upon the placenta in its common position in the upper uterine segment, and it is attended by expulsion of the membranes more often intact. Uncommonly the placenta is delivered as a cylinder, the edge or the edge and the maternal surface presenting; the membranes follow, their anatomical relations preserved. This may be termed the abnormal mechanism because it occurs in the minority of cases; it may be explained by the action of the uterine forces upon the placenta in its uncommon position in or encroaching upon the lower uterine segment; and it is attended by the expulsion of the membranes often incomplete and detached to a greater or less degree.—*Amer. Jr. Obs.*, Vol. 61, 895.

THEODORE J. GRAMM, M. D.

INJURIES TO THE PUERPERAL UTERUS.—Cragin (New York) in comprehensively treating this subject says in the injuries resulting from procedures associated with criminal intent, the damage done depends upon the amount of infection carried to the uterus and peritoneum by the instrument; the amount of intestinal injury; the extent of laceration and hemorrhage. But of injuries sometimes occurring at the hands of skillful men, the most common are extensive laceration of the cervix during instrumental dilatation, and perforation of the uterus by curette or ovum forceps in cases where the cervix is too rigid to allow of sufficient dilatation for the introduction of the finger and the use of it as the extracting instrument. Those who have seen the nonpregnant cervix which was being gradually and carefully dilated with the glove-stretching dilator, suddenly split to or above the vaginal junction without apparent excuse, can understand how such an accident can occasionally occur in the cases of rigid or cicatricial cervix associated with early pregnancy. The writer knows of only one way to avoid this accident, and that is to prepare the cervix for dilatation by an intracervical of vaginal gauze tampon, or by the introduction into the cervical canal of a small elastic bag. The perforation of the clean pregnant uterine wall by the curette or ovum forceps is thought by some men the result of carelessness and impossible in their hands. Yet this injury has occurred in the hands of so many good men that its possibility must always be considered. The uterine wall in pregnancy is softened; it may be thin and relaxed and in these conditions, without extreme care, perforation is easy. The accident may be avoided by a hand above the uterus supporting it, and being careful to recognize the fundus uteri by the instrument introduced with the utmost gentleness. What little force is used must be applied solely in the downward stroke. It is important also that the curetage should be confined within the limits set by nature in the discharge of the product of conception. It must be remembered that the ovum and decidua are all that should be removed and that deeper scraping going through the endometrium and removing portions of the muscular tissue is likely to lead to subsequent trouble, perhaps hyperinvolution, amenorrhœa and sterility.

It occasionally though rarely happens that hemorrhage from laceration occurs even from manual dilatation in eclampsia and placenta praevia. The author does not wholly endorse the dictum that an eclamptic seizure is the immediate indication for emptying the uterus, but would add as soon as is consistent with the condition of the cervix. If the cervix is long and rigid and without previous preparation serious injury commonly occurs, and it is a question whether the eclamptic patient with uterus emptied but with extensive cervical laceration and considerable shock is better off than she would have been with uterus emptied a few hours later, after preliminary softening of the cervix with an elastic bag.

In placenta praevia the lower uterine segment and cervix, although perhaps rigid at the ring of the external os, and often more friable than usual, and in the endeavor to perform version extensive lacerations even amounting to uterine rupture has too frequently occurred. This accident can best be avoided by considering the possibility of its occurrence; by preliminary softening and dilatation of the cervix by the elastic bag or gauze tampon and by gentleness of manipulation.

The author mentions the interesting statistics of uterine rupture at the Sloan Maternity, and says until practitioners realize that a uterus working too long against an unsurmountable obstacle, especially if weakened by previous cicatrices, may spontaneously rupture, and until they realize that a case with membranes ruptured, liquor amnii drained away and uterus contracted upon the child is unsuited for version, uterine rupture is likely to occur.

Of possible postpartum injuries, the author again speaks of the dangers of the curette and of the ovum forceps, and says many have seen these infected uteri after removal, through which the curette or sponge holder could be passed with almost as much ease as through dough, and hence the author claims that the instrument least liable to do harm is the sterilized finger.

Instruments and also the uterine douche may be harmful by opening up new channels for infection, and by breaking down those barriers which nature has already provided against the spread of infection. Frequently repeated intrauterine douches are absolutely bad. If the douche is used it must be administered with the greatest gentleness, repeated not oftener than once in twenty-four hours, and continued only so long as the return flow shows that there is debris which needs to be washed away.—*Amer. Jr. Obs.*, Vol. 61, 185.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,
Miami, Florida.

AN UNINTENTIONAL PROVING OF NUX MOSCHATA IN THE YEAR 1767.—
(Published in October *Homoeopathic Recorder* sent to Dr. Anshutz by
Mr. H. Beattie, of Glasgow, Scotland, who copied it from the Annual
Register for the year 1767, published in Dublin, Ireland.)

A gentleman of Lower Silesia, about thirty-five years old, of a good constitution, and who enjoyed a good state of health, having felt during some days a bellyache occasioned by wind, took it in his head, in order to mitigate the pain, to eat four nutmegs, which weighed altogether two ounces, and he drank, in eating them, some glasses of beer, which he had no sooner done but he was seized with a great heat, a violent pain in the head, a vertigo and delirium, and instantly deprived of the use of speech, sight and all his senses. He was put to bed, where he spent two days and two nights, his body was oppressed with lassitude, always drowsy, yet without being able to sleep. Being called upon to see him the third day, I found on him all the symptoms I have related, and he was in that lethargic state which is called a coma vigil, with a weak and intermitting pulse.

I made him immediately take some cephalic remedies, cordials, and, among others, the spirit of cephalic vitriol, and the essence of castoreum in good spirit of sal ammoniac. The fourth day he recovered a little out of his lethargic state, but had absolutely lost his memory, so as not to remember the least thing he had done in his life. A continued fever then came upon him, accompanied by an obstinate watchfulness; a palpitation of the heart seemed to be the forerunner of other symptoms, and he was finally struck down with a palsy in all his limbs.

At the expiration of eight days he recovered the use of reason, and told us that during the first four days of his illness he seemed to himself to have constantly a thick veil before his eyes, and that a great number of sparks and flashes continually issued from it.

The Retrospect Editor has found Nux Moschata tincture in water valuable in the alternating stupor or lethargy and nervous excitement with heart palpitation found after alcoholic abuses and sometimes in hysterical attacks. This proving, which is interesting as well from its comparative antiquity, seems to justify this use homœopathically.

PRACTICAL POINTERS.—The following interesting melange appears under the head "Practical Pointers" in October *Recorder*:

Dr. Day (*Brit. Jour.*) tells of a case of chronic Bright's disease that

under *Apis* 3x to 30th has rapidly improved, the edema having entirely disappeared.

In a personal letter, Dr. A. M. Cushing says that *Artemisia abrotanum* should be considered as a remedy for the infantile paralysis that has made its appearance in this country.

Dr. E. R. Waterhouse, St. Louis, has a paper, "Gelsemium in Tetanus," in Ellingwood's *Therapeutist*, September. He says that 98 per cent. of the hospital cases into which the antitetanic serum is injected die. He cites case after case from his own, and other's, practice, where *Gelsemium*, tincture, given in half teaspoonful doses until the physiological action sets in, cured the case. The physiological action of *Gelsemium* is complete relaxation of the muscular system.

In the "discussion" of a paper on *Calcarea phos.*, published in *Iowa Hom. Jour.*, Drs. A. C. Woodward, F. O. Richards and Nettie Campbell all mentioned cases of bow-legged children whose legs became normal under this drug. This is a good drug for "slimpsy" children, to use the old English for the rachitic, as Dr. Richards did.

Attention is again being called to the importance played by lime in the prevention and cure of tuberculosis. The *Recorder*, January, 1909, has an account of a case far advanced that was cured by the man getting a job where he had to inhale much lime dust. Both in France and Spain medical writers have mentioned recently the importance of lime in this disease.

One of the best remedies for the colds that occur in the hot days and cold nights of autumn is *Gelsemium*.

Thompson, *Medical Record*, says that the common idea that *Digitalis* is a heart tonic is a gross error. "Just as the effect of ergot is limited to a healthy uterus dilated by pregnancy, so that of *Digitalis* is limited to a dilated heart without diseased walls." The wise doctor, if he must have a heart tonic, will use *Crataegus oxy*. It aids the case and *hurts no one*.

An old homœopathic physician writes us (private letter) that he suffered from tuberculous lupus about the nose, which was slowly spreading. Finally he tried the X-rays on it. The disease disappeared for a short time, but has reappeared much worse than before. This case goes toward confirming Hahnemann's doctrine that you cannot cure from without inward. The cure, to be a cure, must start at the center and go to the circumference.

Dr. R. B. House writes in private letter that he recently had a very bad case of whooping cough in which all remedies failed until he gave *Mephitis*, which relieved at once. The same remedy has also been doing well in his practice in spasmodic asthma.

Dr. J. S. Stabaugh, Neppanee, Ind. (*Hering Quarterly*), reports case of erysipelas that came to him after five days of allopathic treatment. *Hepar sulph.* seemed to check the disease for a time, but it began spreading again. *Lachesis* then effected a prompt cure.

"Many cases diagnosed marasmus, really extreme malnutrition, with faulty digestion and weakened assimilation, as seen in cases of rickets, scurvy and rheumatism, can be brought back to the normal or near-normal, unless there is some underlying cause such as inherited syphilis, tuberculosis, or the effects of chronic alcoholism in the parents, with the aid of fruit juices."—Dr. Geo. D. Scott, in *Therapeutic Medicine*.

"The death of children under one year of age is due to shams, and abuse of diet, patent infant foods, and Pasteurized milk."—Elmer Lee, M. D., *Medical Times*.

"Do we go too far in our tonsil surgery? We must conclude such to be a fact if the tonsils are not vestigial remnants, but 'sturdy guardians of the dangerously exposed introitus of the two great systems, digestion and respiration.'"—*Therapeutic Medicine*. The man who knows the scope of homœopathic medicine does not often have to have the tonsils cut out. See, for example, Burnett's *Tonsils*.

If a patient wants a remedy for goitre, and yours has failed, put him on *Fucus vesiculosus* 5 to 10 drops. *Fucus ves.* is a species of sea-weed, "bladder wrack." It is reported to have aided many cases to recovery.

Pure olive oil will give relief in many cases of gastric ulcer. It doesn't interfere with medicine. Its action is very soothing to many cases. It should be considered in cases of dyspepsia.

If impelled to try "vaccines," so much in fashion at present, Don't! Try instead the homœopathic nosode corresponding. If there happens to be none in a given case, have that "coccus" (or whatever else it be) triturated and "run up" to the potency you desire. Better and *safer* results will follow.

SPONGIA.—A dry suffocating cough with soreness and burning in the chest. The patient is very hoarse. There is a sense of constriction of the larynx which makes the respiration difficult. The difficult respiration often accompanied the dry metallic cough, and there is a feeling as if the breath passes through some porous substance. *The dry cough and constriction are both relieved by eating and drinking.*—Hinsdale, *Century* for October.

IPECACUANHA.—A constant, rough, shaking, ineffectual cough. Ineffectual in the sense that mucus, of which there is a large amount in the bronchial tree, cannot be dislodged by coughing. *The cough causes much nausea, "gagging," and sometimes vomiting.* With the different conditions in which you find ipecacuanha cough you have a *whooping, whistling in the chest.*—*Iowa Journal*.

CANNABIS SATIVA.—Dr. R. S. Copeland is authority for the statement that this drug in the 6x dilution will, in some cases, cause the disappearance of corneal opacities due to scar tissue. Other drugs which are credited with causing the absorption of cicatricial tissue are Graphites, Mercurius, and thiosinamine. The latter drug should be applied locally in the form of a cerate and given internally in doses of one-half grain. Good results have followed its use.

Thyroidine is recommended for nocturnal enuresis in children. It is especially useful in those who are inclined to obesity and to adenoid growths. *Causticum* 30 is a very successful remedy in this affection.—Hinsdale, *Century*, October, 1910.

FOREIGN LITERATURE

INFANTILE PARALYSIS WITH MENINGEAL OUTSET.—*Meningeal Forms of Heine-Mélin Disease*.—In the last sitting of the *Société Médicale des Hôpitaux*, November 1st, 1910, Dr. Netter declared that since the summer of 1909, infantile paralysis has prevailed with unusual frequency, and a certain number of the cases has been, during the initial period, attended with symptoms which certainly led to the diagnosis of cerebro-spinal meningitis and more rarely of tubercular meningitis. We have noticed this character in nearly a third of the patients. The cases of this character have been collected in Paris and in the outskirts as well as in the departments: Pas-de-Calais, Cotes du-Nord, Eure, Aube, Yonne, Basses-Pyrenees, Oise, Orne, Creuse, etc.

The lumbar puncture in these patients gives a clear liquid containing above all lymphocytes, but its verification has not been constant, and the existence to-day well established of meningitis due to the diplococcus of Weichselbaum, in which the lumbar puncture draws a liquid clear and poor in polynuclear elements, does not allow to base the diagnosis by a cystologic examination only.

The epidemic notion, the very marked predominance of these cases in the summer and in the fall, time in which cerebro-spinal meningitis is rather rare, should be in many cases sufficient to make us watchful and guarded.

Side by side of these cases in which the meningeal accidents are followed by lasting paralysis with atrophy, and reaction of degeneration, we have observed cases where the paralysis has been of short duration and slightly marked. These cases should be considered as attenuated forms, allowing to admit the existence of masked forms in which the clinical tableau will be limited to the meningeal symptomatology.

We have exclusively considered the unpublished cases gathered by us this year: 14 new observations to be added to 9 observations published in the month of July.

We have collected analogous facts outside of all epidemic period, and it seems to us to have been relatively frequent in Paris in 1898, year, where like in the actual period, though in less notable proportions, cerebro-spinal meningitis has presented a manifest recrudescence.

EXPERIMENTAL CHIMIOETHERAPIA OF THE SPIROLLES (syphilis, recurrent fever, spirillose of chickens, frambesia), by Ehrlich and Hata, with contributions by Nichols of New York, Iversen of Saint Petersburg, and Bitter and Dreyer, both of Cairo, in one 8vo vol. of 164 pages, 27 illustrations and 5 plates, is a work just been published by the house of Julius Springer, of Berlin, which will no doubt interest those experimenting with 606.

After a preface by Ehrlich, Hata of Tokio reports his numerous and minute experiments with the *chimiotherapia of the spirilloses*. He tried atoxyl, arsacetina, arsenophenylglycina, arsenophenol, atoxylate of mercury, arsenobenzol and other arsenical preparations, not only in recurrent fever,

but in the spirillose of fowls. He succeeded in curing syphilitic keratitis and syphilis of the scrotum in rabbits with arsenobenzol.

Nichols studies then the *action of 606 on the spirochete pertenuis* (frambœsia) on the rabbits and apes. Twenty hours after the injection the spirochetes could not be disclosed.

Then Iversen of St. Petersburg ponders on the *chimiotherapia of recurrent fever*. He concludes that in 606 we possess a remedy which destroys, in the circulating blood, the spirochetes of recurrent fever with a mathematical certitude and without injury to the patient. Here exists an effective *therapia sterilisans magna*, and this is not one of the less brilliant results of modern chimiotherapia.

Bitter and Dreyer, of Cairo, confirm these facts and report a few cases of recurrent fever treated by them in Cairo.

Ehrlich in a terminal article, explains how, starting from atoxyl he was led to create a new arsenical product, the 606, where by substitutions he succeeded in lowering the global toxicity, while increasing at the same time the trephonemicid properties. He reviews the indications, contraindications and the results obtained with arsenobenzol in the treatment of syphilis. He insists, he does not know of any ocular troubles caused by "606," and that of cases of death reported, only one (the case of Spiethoff) seems to be due to the remedy, which was thought poorly prepared.

A bibliographical index of the articles on "606" which have appeared, ends the book.

INQUIRY ON THE ACTION OF "606."—In the *Bulletin Medical* of November 19th, 1910, we read the following: "The *Medizinische Klinik* has undertaken an inquiry about the results obtained with '606,' and in the number of the 13th of November we find some very interesting replies.

"In 74 cases treated according to the method of Ehrlich-Hata, Professor Bruhns, of Charlottenburg, has observed 2 relapses after an injection of 0.30 centigr., 2 after 0.45, and 3 after 0.50.

"Professor Welander, of Stockholm, treated 65 patients with 7 relapses, 6 after an injection of 0.40 centigr., and 1 after 0.45.

"All the injections were made in the sub-cutaneous cellular tissue, and with unhappy results in many cases, as the professor had to deplore the production of necrosis. He has, however, never seen either the production of intoxication nor of ocular complications.

"Professor Zeissl, of Viana, in 149 cases only observed 6 relapses.

"Finally Dr. Dreuw, of Berlin, found 4 relapses in ten cases treated. In two cases, he noticed a necrosis of the gluteal muscles of the size of small fist; in another case a necrosis of the size of a nut was developed on the back, and in two other circumstances, six weeks after the injections, indurations could be observed yet. In one of the cases necrosis was produced in the place of the injection. Finally, in a patient Dr. Dreuw noticed considerable emaciation, with a loss of 19 pounds."

THE HAHNEMANNIAN MONTHLY.

FEBRUARY, 1911

Transactions of the Homœopathic Medical Society of the State of Pennsylvania

ADDRESS OF THE PRESIDENT.

BY

HENRY F. SCHANTZ, A. M., M. D., READING.

Members of the Homœopathic Medical Society of the State of Pennsylvania:

LADIES AND GENTLEMEN:—This year we commemorate the centennial of the publication of "The Organon," the so-called "Bible of the Homœopath," that wonderful book, published by Arnold, of Dresden, for Dr. Samuel Hahnemann in 1810, and it is proper that at the opening of this 47th session of our state society, we pay a tribute to the great work of this great man to whom our school of medicine owes its existence.

Take that book and compare his statements with the "findings" of our modern research workers and the medical student of this century can profit by a study of the different sections. We do acknowledge that some of the conclusions have been revised by investigations which have been made possible by improvements in instruments of precision and laboratory methods, but the main facts stand.

I can pay no better tribute than to quote from the address which Dr. Augustus Kornderfer, Sr., delivered at the March meeting of the Homœopathic Medical Society of the County of Philadelphia, when he concluded thus:

"Science, during the past century, has indeed aided much

in verification of Hahnemann's teachings, elucidated many difficult problems, which he solved in practice, and interpreted many obscure details which he was unable to demonstrate other than clinically.

"Our faith in the scope and power of the law of similars has thus been strengthened and convincing proof of the universality of its application in all dynamic non-surgical forms of disease has been definitely afforded.

"Thus with laboratory confirmations through the prophylactic action of specific nosodes and innumerable verifications through the clinical use of drugs, proof has been added to proof, until certainty has taken the place of conjecture, law has superseded hypothesis, and science has supplanted empiricism.

"Let us then on this centennial of the publication of "The Organon" in grateful recognition of the inestimable benefits accruing to mankind and to the cause of scientific medicine through the discovery and application of the law of similars, accord all honor and praise to that illustrious savant, profound philosopher and prince among physicians, the founder of Homœopathy, Samuel Hahnemann."

The existence of the Homœopathic School of Medicine—call it a School of Therapeutic Specialists, if you prefer—is dependent upon the ability of the adherents of the school to apply the Homœopathic *Materia Medica*. So long as our *materia medica* stands the therapeutic test, the school will exist and no longer. It is our duty to study, simplify and perfect our system of *materia medica*, for therein is our strength, and sole cause for separate existence. When we ignore our *materia medica* and wander afield after the strange allurements of drug combinations and synthetic remedies, to that extent we weaken our system of medicine.

Do not infer that I would advocate a study of the homœopathic *materia medica* to the exclusion of medicine in general, but make it your hobby, and as the title of Doctor of Homœopathic Medicine is an additional degree to that of Doctor of Medicine, so must the study of Homœopathic *Materia Medica* be zealously pursued by us "in addition to" all other branches of medical study, for that is our distinguishing mark in the medical world.

That same old problem, the legal status of the Homœopath in Pennsylvania, again demands our attention. In the "Battle of 1909" on the Hill at Harrisburg—Legislative Battle, I

mean,—which it was hoped would end these biennial onslaughts on the question of medical licensure, and in which a truce was declared for several weeks after the so-called “gentlemen’s agreement” had been made, ended in a fizzle, owing to the fact that several influential members of the Medical Society of Pennsylvania, hoping to secure the support of the political powers of the state, and thus crush the opposition, discredited the officers and committee of the Medical Society of Pennsylvania before the Senate of the state and the Herbst bill failed.

To show that the majority of the members of that society of the dominant school favored a “fair” bill as the modified Herbst bill seemed to be, let me quote from the report of their Committee on Public Policy and Legislation adopted at their Philadelphia meeting last September.

“The committee justifies its action in making the compromise in that it believed it would have been the best thing for the profession in the state. It would have been the best possible means of bringing together the three great medical societies of the state, and uniting them in the struggle for higher ideas. It would have started the single board of examiners idea and avoided the multiplicity of examining boards. It would have proved to the Legislature and the public, the truth and honesty of our purpose, that the objects of the law were more important than the composition of the board. Now, the public impute to us only selfish aims; the sectarians are driven further from us and they have stronger argument against any bill in which the enlarged claims of the minority schools are not definitely allowed.”

So much for 1909. Just what move will be made in 1911 is conjectural. But thanks to the labors of the members of this society in former years, we need no longer fight for existence. We can and must now stand for the preservation of the identity of our school, and *equal* representation in whatever legislation is proposed. We can more logically stand for a continuation of the rights granted to us by legislative enactment than ask for new privileges.

We have little to fear from the opposition, for the principle of equity will preserve our rights, but the element we need to consider is the exaggerated apathy of our own members; a self-satisfied condition into which so many of our members have drifted and from which it is so hard to arouse them. They have their diplomas, are licensed physicians and have little in-

terest in safeguarding the rights of those who are to follow them in the practice of medicine. They do not seem to realize that they must lay down their work some day. We must look to the preservation of the rights of those who are to follow us.

We have earnest men who will war for Homœopathy, as was evidenced in Harrisburg on March 23, 1909, when hundreds of practicing homœopaths went to Harrisburg, and entered their personal protest against legislation which encroached upon their rights, and if another call "to Harrisburg" is issued I am confident that the demonstration will be noteworthy—but we must institute missionary work among the laggards.

The question of medical licensure is not the only one for our legislative committee. Efforts are being made in several states to enact legislation preventing the dispensing of medicines except by prescription, and these efforts will doubtless be made in our state. The legislative committee must be constantly on the watch for "snake" medical bills. When this committee needs our support and calls for our presence they deem it necessary, and it is ours to go to their assistance.

The old-time general practitioner was the adviser in many matters other than purely medical. To-day that close relationship of patient and physician is a rarer condition, but occasionally advice is sought of physicians. Higher education always appeals to the physician and it is but natural that our state society should have been invited to send delegates to the meeting held in Harrisburg on May 26, 1910, for the purpose of organizing the State Educational Alliance, the representative body at whose request the School Code has been prepared for presentation to the legislative session of 1911. Our representatives should be instructed to attend the meetings of the Alliance and favor every effort to improve school conditions in the state, be they in the educational or sanitary sections of the bill.

The uncompleted Pennsylvania Homœopathic Hospital for the Insane at Rittersville has been extensively exploited in a state newspaper. The bill passed in 1901 creating the building commission for this hospital provided that all the buildings be completed before the plant be transferred to the Board of Trustees. The Homœopaths have been the unfortunate victims of the delay because we have been compelled to wait all these years to demonstrate the efficacy of the homœopathic treatment of the

insane as has been done in other states, notably at Westboro, Mass., and at Gowanda and Middletown, New York.

We desire to express the hope that at the next session of the Legislature such a bill be passed and approved by the Governor as to permit of the early completion and equipment of this "deferred" institution. Whether a Board of Trustees should be appointed, and the institution prepared for reception of cases while the unfinished buildings are completed or whether all the buildings be completed as originally planned is a matter for legislative decision. Speed the day when we may meet at the opening of that Rittersville Hospital "under Homœopathic Management."

The fight against tuberculosis is being waged with untiring persistence and it is gratifying to note with what unanimity the public is aiding in the movement. That tuberculosis is not the only enemy to be fought is apparent and a propaganda against *cancer* conducted on educational lines similar to that instituted and promulgated against tuberculosis cannot help but inform the public of the dangerous symptoms of the incipient cases, cause them to note the warning and by early recognition effect the early treatment of the cancer cases when results are possible.

The work of the State Department of Health, headed by Dr. Samuel Dixon as Commissioner, is a credit to our state, and his fairness to all competent physicians, regardless of school, is commendable. The pollution of streams, sewage disposal, the isolation of contagious diseases and school sanitation are being handled successfully.

The smoke nuisance is justly arousing public protest. It has appeared to me that the solution of this problem should rest with the producer of smoke as an economical factor in production cost. Dust and dirt destroy value of plant and product. They affect the health of the operators and as such increase the cost of production, and should be the subject of investigation and action on the part of the manufacturer, and it should not be necessary to enforce legal means to control the nuisance. The smoke nuisance must be remedied, and if the smoke maker continues to pollute the air we breathe and smudge our homes the law must be invoked.

In national politics efforts are being made to effect a control of medical and sanitary matters in a Department of Health. Conducted on the broad lines of no favoritism, it would prove a boon to all branches of the profession, but if it becomes a

medical trust it would work mischief. This is hardly possible in these days of medical freedom and I see the advantages to be gained. Suppose we had access to a Government laboratory for the proving of our remedies what a benefit to our school to have such a state approval. Then, too, the demonstration of the effects of compulsory sanitation as was seen in Cuba is a convincing argument in favor of a department of health.

The action of the American Institute of Homœopathy at the Pasadena meeting in July condemning the Mann, Owen, Cul-lum and other bills, but favoring the introduction of a bill into Congress for the creation of a National Department of Health, thus recommending national health legislation but opposing national medical legislation merits the official endorsement of this society.

A new factor in education in our United States has to be reckoned with in the Carnegie Foundation, which seems to pose as a censor in all medical as well as general educational matters and is more radical by far than the American Medical Association through its committees ever attempted to be. The utopian idea of a redistribution of the larger medical colleges and universities and the annihilation of the small college seems to be the Flexnerian ideal. We have a college of our school in Philadelphia—Hahnemann Medical College—which in “Cathellian” pipe dreams last September was to be taken under the “protecting (?) dome” of the University of Pennsylvania as its homœopathic department, the Women’s Medical College and the Polyclinic were also assigned to the University, while the Jefferson and Medico-Chirurgical colleges were to be merged and the Temple College was to “look out for itself.” What a nightmare that man must have had to see such visions. But hold! The Carnegie Foundation in the report would go further, and the University of Pennsylvania would gobble all. Thanks to fate this is all in the winds at present. The aeroplane has not descended in Pennsylvania, and fortunate it is, for if the laboratory methods should prevail we would have a small corps of “scientifically” educated men provided to cope with conditions which need practical men to treat physically defective men. We need physicians of high moral standing, competent men who can treat the suffering, and the important question is, will the scientifically expert laboratory diagnostician be as successful as the practical man who uses tried, indicated and proven remedies to cure the sick?

At the banquet of the Alumni Association of Hahnemann Medical College last June, the new dean, Dr. W. B. Van Lennep, announced the endowment of the Constantine Hering Professorship of Homœopathic Materia Medica and Therapeutics, made by Mr. Walter Hering, as a memorial to his distinguished father, Dr. Constantine Hering, whom we all revere as a great American Homœopath. It is a fitting tribute to his memory and one which gives the teaching of Homœopathy a permanent place in the only homœopathic medical college in our state, and the oldest in America, and aids in establishing the permanency of Homœopathy.

In speaking of legislative matters, another very important question—the hospital and dispensary abuse was intentionally omitted.

Far be it from me to leave anyone under the impression that I would curtail or favor the curtailing of the hospitals and dispensaries so far as the treatment of the *poor* is concerned, but it is the abuse of the privilege by those who have no claim on charity that should be regulated and should receive attention by a legislative enactment. A law making it a misdemeanor for those who are able to pay to apply for or accept free treatments would have a deterring influence on these imposters. Hospitals are not only intended for the treatment of the poor but also to provide improved modern conveniences, comforts and accommodations for the sick and injured among the well to do and affluent classes, for which they are expected to pay. As charity should be extended to the deserving poor only, the acceptance of such charity by those able to pay the reasonable fees of general practice is “demoralizing to themselves, a robbery to the poor, and a gross wrong upon the taxpayers and the benevolent citizens who contribute to the maintenance of charitable institutions.” That a man of means can accept charitable treatment from the staff of a hospital and when his circumstances are discovered, refuses to pay because the institution is receiving an appropriation from the state, and the physician is a member of the staff of the hospital, is disgusting and to say the least unfair and unjust, especially if sanctioned by a lay board of trustees. In many communities the status of the hospital physician is misunderstood by the layman, who considers him a paid official. Until the personnel of the governing boards of the hospitals contain more broad minded men the staff will meet with these difficulties in regulating the admission and control of free cases.

Our homœopathic institutions must be safeguarded. The experience of the Cleveland, Ohio, Homœopaths who were routed by an unfriendly board of trustees but who secured their rights by a judicial opinion is a lesson we must learn. Only recently one of the homœopathic hospitals in this state was nearly lost to the school. A few of the members of the board of trustees of this institution who had personal differences with several active members of the medical staff of the hospital attempted to secure the services of a salaried physician to take charge of the hospital, have a corps of paid assistants, who were to be selected regardless of school, and the old staff were to be ousted. Fortunately the charter did not permit such a high-handed move and all the endowments might have been lost, so the plan was abandoned, temporarily at least.

The methods of distributing appropriations among the various hospitals and institutions will probably be changed next year, and there should be no more favored hospitals with political pulls receiving large appropriations, but each should be reimbursed according to their deeds and needs on a per diem basis, dependent on local conditions.

The practice of medicine is a profession but the physician must inject business methods into his professional work. So far as the scientific work is concerned, it is a profession, but if a physician is to be honest and pay his just debts and accumulate a competency for his later years and those dependent on him, he must follow the laws of business. There must be a mercenary side to the practice of medicine if we are to meet our obligations.

Let us re-establish fraternal relations with our neighboring state societies and send and receive delegates—a matter which has been neglected in recent years, for cause which is not apparent to me.

To those who aided and will aid in making of this meeting, to the officers, chairmen of sections and committees and their associates my personal thanks are extended, and my sympathy goes out to those who were asked to co-operate and who had more excuses than reasons for neglecting their duties to the society. Pity the man who is too busy to do his duty to his professional associates. Some men cannot be active members of state society for three days in September.

How small calibred the man who will not work for the in-

terests of the society because he differs with the views of this or that appointee.

If you do your duty and do it well you are certain of arousing adverse criticism. He who has no critics never has done anything worthy of criticism. When our detractors are most busy, remember that each knock is a boost. Our own Dr. Samuel Hahnemann kept the medical knockers of the last century employed more than the prescribed eight-hour day and the medical descendants of those men have developed a similar condition, which evidently is etiologically hereditary.

The former persistent efforts to annihilate the Homœopath were interesting to follow. In place of attack to-day editorial efforts are now made in the press of the dominant school to convince the Homœopath that he is a good fellow, represents a tenable law but he can not be "recognized." He is to be absorbed, but not "recognized." The studied efforts to make the public believe that scientific medicine recognizes no pathy or sect in medicine is really amusing. Far better were it to recognize the Law of Homœopathy as a reality which it is and make it a therapeutic part than to unfairly attempt to appropriate its teachings without acknowledgment. We have a "good thing" but let us preserve it.

Three years ago it was my pleasure to assist in the organization of the West Branch Homœopathic Medical Society and to-day it is my privilege to extend the thanks of the state society to you for the invitation which was extended and which was accepted at the Scranton meeting. To-day we are in session and we thank you for the splendid preparations you have made for our meeting.

Addresses of my predecessors have been replete with good advice, the effect of which only lasted sufficiently to appear in the transactions. To be a reformer may be ideal, but in these days of general chaotic conditions in religion, politics and medicine it is a thankless job, and I do not aspire to reformation honors.

Finally, let me express my thanks to the members of this society for the honor conferred on me at the Scranton meeting, in the election as your president for the year 1910. I assure you it was an appreciated acknowledgment for the years of work done in the interests of the society and if personal efforts count, this meeting should meet with your approval. It was work, hard work, but withal pleasant work.

BUREAU OF OBSTETRICS

PNEUMONIA IN THE NEW BORN.

BY

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IN consideration of the pneumonia of infants, I shall first review briefly some general considerations about the disease and shall then discuss to a greater extent the special features which seem to me to distinguish its course in infants.

Lobar, or croupous pneumonia, although a disease of all ages, shows a decided preference for adults. Dangerous at all times, it is especially fatal at the extremes of life, recovery being rather the exception than the rule, in persons under one year, or over sixty. It attacks men and women with equal frequency.

The disease is violent in its manifestations, and rapid in its course. It is an infectious disease in the sense that it is due to an infectious agent, although not highly contagious. It is not a local infection of the lungs only, but a systemic infection.

The microörganism is to be found in the circulating blood in a large proportion of cases in which search has been made, and lesions containing this organism occur with some frequency in remote parts of the body, either as complications or as sequelae of the pneumonia.

The onset is marked usually by a chill, often by a severe pain in the chest or abdomen, and by a fever. A cough soon develops and becomes severe. It is at first unproductive, short, and incessant, preventing sleep, and even interfering with the taking of food. Later the cough is looser, and there is expectorated a characteristic sputum, and still later the expectoration may become fluid, and larger in amount. It happens with considerable frequency, however, that the final stage of profuse expectoration fails to occur, the exudate in the lung disappearing by absorption.

From the start the patient is evidently sick. He is usually found in bed, but not always. I have found a woman with definite pneumonic consolidation of one lobe, and a temperature of 103.4-5, sweeping the house. Delirium is not common early

in the course of the disease, but after a few days is likely to be present.

The course of the fever is well defined. An abrupt rise at the outset, attaining a maximum within 24 hours, followed by a fastigium of from one to 15 days, during which the temperature remains constantly high, a rapid fall in the crisis to sub-normal, and a gradual return until a permanent normal temperature is again established. With the fall in temperature the cough ceases to be troublesome, although it is likely still to be present. The delirium ceases, and the pulse and respiration again approach their normal figures.

Catarrhal, lobular, or broncho-pneumonia differs from the lobar form in being more frequent at the extremes of life than during adult life. It affects scattered portions of lung tissue, usually not individually large, and has a decided tendency to shift its location, appearing day after day in new locations, the previous areas undergoing resolution as the new ones appear. The infectious agent is usually a different one from that found in lobar pneumonia and has a much smaller tendency to invade portions of the body remote from the lungs. The onset of the disease, when primary, may be as acute as in lobar pneumonia, but it is more frequently secondary and supervenes as the terminal phase of some other disability. When primary, also, the onset may be insidious, as many as six or seven days elapsing before a definite diagnosis is possible, and death may occur without a correct diagnosis having been reached. The fever is not likely to be so high as in lobar pneumonia, partly, no doubt, because of its preference for debilitated subjects, whose reaction against the disease is not so vigorous. The cough is severe and continued but not of the incessant character of that of lobar pneumonia. The thick tenacious bloody sputum is much less common, the sputum being more apt to be muco-purulent or purulent in consistency. The course is apt to be prolonged, and recovery by crisis is comparatively rare, the pulse and temperature coming down gradually, through a period of days or even weeks. Chills may occur, but the characteristic initial chill of lobar pneumonia is mostly absent. The "stitch" also, the excruciating pleuritic pain, so common in the early stages of lobar pneumonia is less frequent. This is the form more commonly met with in infants, and in old age.

In the special case that we are considering, the pneumonia of the new born infant, it is probably oftenest an aspiration pneu-

monia, from the inspiration of material during the first efforts at breathing: Anerodias,¹ in "The Practice of the Diseases of Children," names the penetration into the respiratory tract of a putrid amniotic fluid as a possible cause of infection, but it is more likely that the inspired substance is mucus, and it is not certain that it need be infected. Traumatism undoubtedly plays its part also, and pneumonia in new born infants occurs more frequently after a difficult labor.

Pneumonia of the new born is difficult of diagnosis, but is a fairly common disease. Hirst² states that it is the commonest serious disease of the first week of life. In a systematic set of autopsies on the bodies of all the infants dying in the Philadelphia General Hospital, pneumonia was found in very large proportion, frequently not diagnosed during life. On account of the difficulty of diagnosis, no direct figures are obtainable as to its frequency, but a comparison of the preceding statement as to its relative frequency, with the figures for death in early infancy from all causes, shows that it must be frequent. Anerodias, in the work already referred to, states that of every thousand infants born, 48 die in the first month, and 19 in the first five days.

Pneumonia in the new born has an acute onset. Convulsions are the usual expression of onset, corresponding to the chill of adults. Commencing soon after birth, they may continue for a short time only, or throughout the course of the disease. Cyanosis is usually marked. The extremities and face are pale and cold, while the trunk is livid. Coincident with the appearance of these symptoms there is a rise of temperature, usually not marked. An elevation of temperature in the first few days of life, however, even if unaccompanied by other evidences of pulmonary disorder, should lead to a careful search for the physical signs of consolidation of the lungs.

The pulse is rapid and frequently uncountable. Respiration is usually very rapid, 60 or 80 per minute being common, and it may be 120 or higher. Rarely the respiration is slowed, a condition attributed by Trousseau³ to induration of the tissues occupying the thorax, resisting respiratory movements. The infant refuses to nurse, although manifestly hungry. It grasps the nipple eagerly, but relinquishes it almost at once, apparently because of respiratory difficulty. Cough is usually present and of a characteristic sort. Short, dry, incessant, a cough accompanies each respiratory effort, and the forced character of expiration has been noted by almost every writer on the subject.

There is no expectoration, whatever sputum there may be being swallowed, as these children are too young to expectorate. It may be vomited however, and when seen is a light and frothy, white or pinkish fluid. Like any other symptom, cough may be entirely absent, but this is rare.

The play of the alae of the nose, so prominent a symptom among older children, is prominent also in very young infants.

It is less characteristic however, as it occurs with rapid or difficult breathing from any cause.

Finally, examination of the chest is the test on which the diagnosis must be made. The signs are difficult to elicit, partly because of the small area of the chest, partly because of the difficulty of examining a child as sick as these infants, and partly because of the variability of physical signs in the chest of a healthy infant. Percussion may show one or more areas of dulness, but auscultation is of decidedly greater value. Bronchial breathing is as characteristic in the infant as in the adult, but it must be remembered that the puerile breathing of a young infant approaches the bronchial in quality. Exaggerated bronchophony is frequently heard in normal infants. Difference between the two sides in tactile fremitus, when found, is a valuable indication. Rales are usually present, and as the pneumonia is usually associated with a more or less pronounced bronchitis, large and medium moist rales predominate. Pleural effusion rarely occurs.

The duration of the disease is indefinite. Death, when it occurs, occurs oftenest in the first week, and may occur almost at the onset. After the first week, the prognosis becomes much more hopeful, although months may elapse before the patient is well.

Continued normal temperature may be regarded as evidence that the pneumonia has ended, although the cough may persist for a long time.

I have left until the last, the discussion of cerebral symptoms on account of the frequency with which these cases are diagnosed as meningitis. In children, nervous symptoms are a pronounced feature of every disease. Convulsions, vomiting, retraction of the head, tache, are frequently present in all the serious diseases of childhood, without any actual invasion of the meninges by the infectious process. The greatest caution, therefore, should be used in naming meningitis as the ailment of a sick child, except on the most positive evidence, and after,

the exclusion of pneumonia, gastroenteritis, and other severe diseases. Death occurs, according to Holt,⁴ always by respiratory failure, and never by cardiac failure. According to Hirst, cardiac failure is the rule, the right auricle always being found dilated.

Treatment consists, first, in sufficient feeding. The child is almost unable to nurse, and the milk should be withdrawn from the breast and fed to it by means of a dropper. Artificial food should not be resorted to until every resource has been exhausted in obtaining milk from the mother. Absolute regularity in the hours of feeding is important, as the vicious habit of nursing a child to stop its crying, and of giving it a bottle for the same purpose, are responsible for many infants' death from digestive disturbance. The interval of feeding should be two hours. Freedom from handling is the next requisite. The child is sick. Its feeble resources are taxed to the utmost, and to call upon it for the added drain of passive exercise in handling, rocking and petting is unjustifiable. These items are mentioned first, because they are the most difficult to put into execution. It is next to impossible to get attendants on sick babies to understand that "every two hours" is a different thing from "about every two hours," or that not to handle a child is different from not handling it *much*. These two considerations must be insisted on at every visit, and the degree to which they have been followed must be learned at every visit, usually by cross-questioning.

External heat should be applied by means of hot water bottles or flannel bags containing rice or oats made hot. An electric heating pad is ideal. Mustard cloths or mustard ointments may be applied to the chest several times a day. Bleeding and cupping are never to be resorted to in the bronchopneumonia in infants. In the onset our choice of remedies is limited. Kali iodide, sulphur, chamomilla, bryonia, and tartar emetic are most frequently indicated though carbo. veg. should not be overlooked in the pneumonia of the new born when feebleness, a cough, and oppressive breathing are present. Cuprum ammoniatum has been a favorite remedy in my practice for many years, the principal indication being a suffocative persistent cough. Of medicines, in material doses, the usual remedy will be an expectorant. Carbonate of ammonia in half grain doses every two hours serves the double purpose of an expectorant and a heart stimulant. Stimulation is usu-

ally necessary, and digitalis is effective, and acts more quickly than in adult patients. At this point let me remind you of the statement made a moment ago, that the autopsies of infants dying of pneumonia in the Philadelphia General Hospital showed all the hearts to have stopped in diastole. In addition the constant presence of cyanosis, with coldness of the extremities, serves to tell us that support of the heart is an essential of treatment. Opium in some form is frequently beneficial, in that it quiets the incessant cough and steadies the breathing, but it should be used with caution and in minimum amount. Hypodermoclysis, intravenous infusion of saline solutions, are not measures that recommend themselves to the general practitioner, and are of doubtful value in circulatory failure in pneumonia.

Heavy clothing is unnecessary and often harmful. In particular the cotton pneumonia jacket is a measure that does more harm than good. The covering should be light, and heat should be maintained by external means such as those already spoken of.

I feel that I cannot protest too strongly against the almost universal practice of cutting off the action of the skin by the application of an impervious plaster spread over the chest.

It is claimed by those who make use of it, that its effective action is shown by the moist exudate which forms on the dressing or covering, which moisture in turn, I claim is owing to the hygroscopic property of the glycerine with which the putty is mixed, and not to the moisture extracted from the blood through the skin.

Keep the skin clear and clean over the lungs, with frequent washings with warm water to which bicarbonate of soda or salt has been added, so it may perspire as nearly normal as possible.

Ventilation requires attention and specific directions, and should be as generous as possible. All the windows are to be kept open in any weather, and in good weather an outside porch is better than indoors for the patient.

Finally, if I may be permitted to speak in this way, the most essential feature of the treatment is the early and accurate recognition of the disease. Fever, cough, cyanosis, inability to nurse, undue rapidity of the respiration may be present. A difficult and tedious labor should cause us to watch for pneumonia to appear. The absence of one or of the majority of

these symptoms does not, however, negative the diagnosis. Pneumonia may be present, although there is no cough and respiration is only normally rapid. Careful and frequent physical examination is the only safe guide.

¹ Anerodias in "La Pratique des Maladies des Enfants."

² Hirst, B. C., *Amer. Jour. Gyn. and Paed.*, 1890.

³ Trousseau, "De la Pneumonia" Pamphlet, 1844.

⁴ Holt, "Diseases of Children."

⁵ Sachse, Robt., Inaugural Dissertation (Berlin), "De Pneumonia Neonatorum," 1835.

THE PERINEUM.

BY

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ALTHOUGH there are numerous causes that conduce to transform the buxom young bride with her red cheeks and buoyant gait, to the blanched face and bowed invalid mother of but a few summers hence, yet, I venture to assert that the major portion of them are due to *traumatism* of some part of the parturient canal during child-birth.

As guardians of their well being, it behooves us, therefore, to encourage investigation into the causation of these obstetrical mishaps and institute conscientious means to either avoid them, or when unavoidable, to rectify them.

In this paper we will confine ourselves to a few thoughts on a portion of the vulvar outlet of this canal—the *perineum*.

The *perineum*, in a general sense, includes the entire anatomical structure closing in the osseous and ligamentous outlet of the pelvis and is composed of a network of muscles, fasciæ, ligaments, blood-vessels, nerves, etc. This inferior diaphragm, as it were, is pierced by the rectum, vagina, and urethra as mere slits and when empty their walls lie in apposition.

The *perineal body* is that triangular musculo-ligamentous structure occupying the space between the vagina and rectum and affords anchorage for the several supporting elements which must withstand a goodly portion of the weight of the pelvic organs and sustain any abdominal pressure from within,—such as straining at stool, coughing, lifting, etc.

Providing no dissolution of continuity occurs, it is evidently

due to the elastic make up of the several structures that will endure the extreme distention during child-birth and again regain their almost former relationship. Should there be partial or complete laceration of the perineal body, rending asunder these supporting elements, especially the levator ani and fascial supports, the usefulness of the hammock-like structure of the pelvic floor is just that much impaired, and, sooner or later, there will surely follow a long list of gynecological sequences.

The principal *causes* of *perineal tears* are a relative disproportion between the child and the perineal outlet; rapid expulsion of the head; edema of the vulva; occiput over the perineum in brow and face presentations; large hard head when perineum is rigid and inelastic, especially in primipara; careless forceps delivery; wrong position at moment of birth, such as sitting or standing up; broad shoulders if head is allowed to fall backwards or if traction is made; and, not infrequently, I have noticed when all danger seemed past, the elbow would plow a groove through the perineum.

Many lacerations are therefore avoidable, and it is our duty, as obstetricians, to institute every preventive measure to retain the perineum intact.

The recognized prophylactic treatment consists in *protecting* the perineum. This consists in relieving it from excessive tension. "The thumb and index finger should be placed outside the labia and draw together the tense skin, while the thenar eminence lies against the perineum and presses the head forward towards the symphysis and keeps it fixed there. During a pain the head is held back by the other hand till the anterior fontanelle is born." After this all straining efforts should be forbidden during pains. I always tell my patients to breathe rapidly during pains which prevents straining, and urge them to bear down during the intervals between pains while turning back perineum so that face may be born.

In delayed birth of the head, it is useful to express the head and protect the perineum by the posterior perineal method or by manipulation from the rectum,—the patient being in the dorsal position with the limbs raised or the lateral with knees drawn up.

The birth of the shoulders should likewise require care. The head should first be lowered to allow the anterior shoulder to appear and be fixed behind the symphysis. Then while the

perineum is protected, the shoulders should be guided over it and pressed toward the symphysis raising the head at the same time. Grasping the axilla may aid this procedure. If possible to secure the hand, it is preferable to pull on it and draw the arm out over the chest and thus avoid the after coming elbow to plow a groove through the perineum.

In forceps delivery, when the head is born as far as the anterior fontanelle, the blades should be removed while the four fingers support the perineum and the thumb holds back the head. The head can then be expressed as above outlined.

In cases where laceration seems inevitable, a great many obstetricians prefer episiotomy, *i. e.*, a lateral incision in the perineum. Dudley prefers to do this on one side only. Dr. O. Shaeffer, of Heidelberg University, claims that such incisions heal less kindly than lacerations of moderate severity and that in suturing these deep incisions the surfaces of the divided levator ani muscles should be accurately coapted.

I have for the past few years dilated the vulvar orifice by placing two, three then four fingers in the vagina, palm toward rectum and making traction down and slightly forward, patient being in the dorsal position. It appealed to me that if tiring out the shoulder muscles, by suspension in a dislocated shoulder, would relax the parts sufficiently to make reduction easy, why not tire out the perineal muscles to make the passage of the head easier and also more likely avoid laceration? I am confident that I have saved a number of perinei and in others avoided deep lacerations even in occipito-posterior positions. I am citing this experience for what it is worth and hope to hear the views of others along this line pro and con.

Since choosing the subject of this paper, I came across a very convincing article; subject, "A Simple Method for the Prevention of Perineal Lacerations," in the *Medical Advance*, written by Dr. W. H. Freeman to whom it was suggested by Dr. H. H. Baker. He claims that the procedure is a godsend to mothers and that by it lacerations can entirely be obviated in all but the possibly rare and exceptional cases.

"The method consists in the application to the entire vulvar and perineal region of large folded towels wrung out in steaming hot water; the applications being continuous (not intermittent); being kept constantly as hot as can be borne by the hands of the doctor or nurse; being changed every minute or two before they have time to cool; and continued from a half

to one hour, if possible, preceding the birth of the child. They should be continued even while the forceps are in place in instrumental deliveries.

"If hot enough to be effective the patient will usually complain sometimes quite forcibly. If she enjoys the procedure, it will usually be because the towels are not hot enough to be effective.

"When effective the entire region between the thighs becomes bright red and feels hot to the touch, the vagina and internal parts by comparison feeling cold. The structure composing the outlet or floor of the pelvis are now being flushed with an excessive supply of arterial blood and becomes as flexible and elastic as rubber tissue.

"It would seem hardly necessary to state that applications too hot to be borne by the hands might scald the patient and also that the water and towels should be sterile or at least rendered antiseptic and also that the vulva should be shaved."

I have tried this method in conjunction with the careful manual dilatation above outlined with the most gratifying results in very rigid perinei in primipara.

If, however, in spite of all our precautions, the routine, post-partum, digital and ocular inspection reveals the dreaded laceration, we should prepare for immediate perineorrhaphy. This is obligatory on the part of the conscientious attendant, not only to avoid infection but to restore the divided muscles and fasciæ of the pelvic floor which, if left to nature, would ultimately result in rectocele, cystocele and prolapsus-uteri with their sequelæ upon which the gynecologist feasts so lavishly.

To make doubly sure of exact conditions, we should not only separate the labia and inspect the pelvic floor, but pass the index finger into the rectum and palpate the perineum between it and the thumb in the vagina.

Where the lesion requires only a few stitches, anæsthesia is not necessary, as the parts are numb from pressure during delivery. When the tear is extensive necessitating many stitches and careful coaptation, general anæsthesia is preferable.

The instruments necessary are few,—a pair of scissors, needle holder, a few curved needles and suture material,—cat gut and silk worm gut. Having rendered these aseptic by boiling, the genitals and hands of the operator should receive the same preparation that modern surgery demands for any opera-

tive procedure. Personally, I use synol soap and bi-chloride solution on both hands and field of operation.

Where the laceration has not severed the sphincter ani, we proceed as follows: The patient is brought to the edge of the bed, legs flexed on abdomen and held by an assistant. Placing a tampon of sterilized gauze or cotton in upper vagina prevents the uterine discharges from running over the field of operation. An assistant with aseptic hands separates the labia. Jagged ends are trimmed with scissors. The first suture is introduced near the apex of the tear which should accurately coapt the parts and thus avoid burrowing. Some prefer a running cat gut suture, others the interrupted silk worm gut.

One stitch is taken after another till the wound is approximated down to the carunculæ myrtiformes. The superficial skin tear is closed by two, three or four silk worm gut sutures. Should both sulci be involved, a like procedure is followed on the other side. All sutures should be deep enough to include the divided ends of retracted muscles and fasciæ. The suture near the muco-cutaneous outlet should have a special deep sweep and be of silk worm gut. It is well to have the finger in the rectum to guide the needle while placing sutures.

Should the tear not only involve the pelvic floor but also include the sphincter ani and recto-vaginal septum, the surgical technique would be much more complicated. Gradin and Jarman outline the surgical procedure of this woful mishap as follows: "In this operation, we still prefer the silk-worm gut for suture purposes. The first stitches to be inserted are the rectal. The needle is inserted below the margin of the tear and is carried deeply outward so as to grasp the torn ends of the sphincter. It circles around the recto-vaginal septum and emerges at the opposite side, grasping the other end of the sphincter. As a rule two sutures are requisite to secure the sphincter muscle and when inserted these may be tied." The laceration of the pelvic floor is then dealt with as in ordinary incomplete tears.

I am in the habit of administering a two per cent. lysol vaginal douche after the operation. After that only a bi-chloride mopping of the external wound by the nurse and a bi-chloride napkin over the external genitals.

It is contended by some that the urine is a frequent cause of non-primary union. To avoid this they practice catheterization or administer a weak lysol or bi-chloride douche while urinat-

ing. This may be all right with the luxury of a trained nurse; but even she might do harm while introducing the nozzle. In my experience, the simplest and most efficient method is to let the woman roll over on her stomach over a shallow wash basin and pass her water. This will cause it to run over the pubes and avoid contact with the wound besides doing away with any faulty technique in either drawing the urine or douching.

Some lock up the bowels with opiates for five days; others claim that saline laxatives should be administered within 24 hours and thereafter every day. Personally, if the bowels have been thoroughly emptied, either naturally or by an enema, preceding labor, I order a soap and water enema about the third day.

If on removal of the sutures at the end of a week, we find the primary operation a failure, the woman should be urged to undergo the secondary operation as soon as convenient to avoid the dire after effects and thus escape chronic invalidism.

HYGIENE OF THE PERIOD OF GESTATION.

BY

A. GRACE WHITE, M. D., BRADFORD, PA.

IN considering the hygiene of the period of gestation, I do not expect to bring before you anything new, but to impress upon you the importance of the proper care of the body in this state.

Like digestion or respiration, pregnancy is a physiological condition, and like them should be associated with no symptoms of ill health. Therefore, when such symptoms do appear, we have the right to attribute them not to this condition *per se*, but to an abnormal condition of the whole organism. This abnormal condition may be the result of disease of any of the different systems of the body, but much more frequently to improper care of the person or unhealthy conditions of life. These should have been corrected long before pregnancy occurred, but as long as physicians do not regulate the habits of the well, this will be impossible.

In the management of pregnancy in order that the labor may be easy, and the child healthy, proper *bathing* must be institut-

ed. By it we cleanse the body, stimulate organic functions and improve circulation.

Cleansing baths should be taken twice a week, preferably at night before retiring, because of resultant relaxation and sedative effect. It should be taken in a tub half full of water at 100 degrees. Little soap should be used, its place being taken by friction, which will serve to open the pores. A cold stimulating bath should be taken each morning on rising. Here we have choice of sponge, shower, or tub baths. The uninitiated can begin with the water at temperature of eighty degrees, and work it down gradually in the course of a week, to sixty. The bath should not last longer than three minutes, and should be followed by a brisk rub with a Turkish towel. Thus the cutaneous vessels, first contracted, are again dilated, and a sense of warmth and well-being result.

The sitz bath of which douches and enemas may be considered modifications, are peculiarly adapted to this condition. They are not only cleansing, but improve circulation, thus benefiting hæmorrhoids, leucorrhœa and pruritus. They are best taken in the sitz bath tub with the temperature at 110 degrees.

In this general care of the body special attention should be given the *breasts*. Not only should they be cleansed, but retracted nipples should be massaged, and towards the end of pregnancy a solution of alum applied.

From *improper diet* we have a potent cause of headache, nausea, vomiting, cravings, flatulence, constipation and hæmorrhoids. Both the nature and amount of food should depend upon the appetite. The "eating for two" is unwise. Two articles which should never be omitted from the diet are *fresh fruit and whole wheat bread*. Both are laxative and nutritious. Hot water before meals is as potent for good, as cold water during and after meals, is for evil. Reclining for a short time after meals is essential.

Recreation rests the mind and body, and renders the disposition cheerful. Here each individual must consult her own tastes. Walking and carriage riding are enjoyed by all, and most women enjoy the lighter household duties. Of the mental recreations we have, visiting, the popular picture puzzle, reading of good books, lectures, letter writing, and any social recreation where stylish dress is not an essential.

By *exercise* we can improve the nutrition and elimination of the entire body, train the physical system for a trying ordeal, and develop to the greatest extent the muscles to be used.

Deep breathing accomplishes many beneficial results. It especially increases elimination and nutrition. It strengthens the chest, abdominal and diaphragmatic muscles, increases the capacity of the chest, thus giving more room to the enlarging uterus.

Bending from the waist forward, backward and to the sides is practical in early pregnancy, and strengthens the muscles of the abdomen and back. Flexion of the thighs to right angle with the body with the legs extended while lying on the floor is an excellent exercise. Walking pursued in the open air combines the advantages of all the others. The distance can be gradually increased even to five or six miles. Climbing of hills and stairs brings into still greater action the important pelvic muscles.

Clothing in pregnancy should be planned to retain body warmth, to keep up an equable circulation, and to prevent any pressure on abdominal viscera or blood vessels. Corsets and waist bands should be discarded, and all clothing hung from the shoulders. Union suits, tights and *chemise* are suitable for underclothing, covered by a loose princess dress. Proper protection of the upper part of the chest, arms, legs and feet, must be especially impressed on the patient. Light weight woolen is the best material, but meshed underwear and silk may be substituted.

The saying, "All things are possible" originated long ago, but probably subsequent to pregnancy. It is quite encouraging to bear this in mind when first trying to persuade the young prospective mother of the necessity of following out these regulations. But after we have, for a few years, noted the favorable results, we become so enthused as, for the most part, to have little difficulty in maintaining such a hygienic condition.

ABDOMINAL PREGNANCY AT TERM WITH THE REPORT OF A CASE.

BY

W. C. MERCER, M. D., PHILADELPHIA, PA.

THIS condition comes under the subject of Ectopic or Extra-uterine Pregnancy, which is classified according to the position of the ovum originally as Tubal, Tubo-ovarian, Ovarian, and Abdominal.

Abdominal pregnancy is divided into primary and second-

ary. Many authors doubt the occurrence of the primary variety, which would be when the ovum attaches itself immediately to the peritoneum and this is considered exceedingly rare.

There are a few cases reported to be such and they are by Schlechtendahl, where the ovum was found located near the spleen; Braun's and Zwerfel's case was attached to the posterior wall of the uterus and sigmoid flexure. Koberle reports one also.

At one time Hecker reported quite a number of cases, in fact according to his statistics it occurred twice as often as tubal, but on investigation they were found to be secondary. Martin Voigt and Leopold each report cases, where an impregnated ovum attached itself to the fimbria ovarica, this being a small base, it spread out on to the surrounding surface giving the impression that it started on the peritoneum.

Canudy reports three cases that extended beyond the normal term of gestation but it does not say whether they were primary.

It is evident from what I can gather from statistics that primary abdominal pregnancy is very rare and especially going to term.

Secondary ones have been reported frequently by a number of men, some of these being Siltner, Wells, Selligmann and Price.

This may follow a primary tubal, tubo-ovarian, or ovarian pregnancy. Even the secondary variety is rarely found at term.

Williams reports six cases that occurred in the last hundred years in England. Egars reports a few.

Baer and Popon report a case each of ovarian pregnancy going to term and others that did not continue to full time.

It is evident then, from reports that abdominal pregnancy is not a common thing and many obstetricians never see them.

Most of the cases that have been reported give a history similar to ectopic pregnancy.

They have attacks of pain and fainting spells with bleeding, the continuance of the same course depending on the amount of injury done to the surrounding tissues and from the amount of bleeding. The ovum proceeding to grow only when the placenta is not entirely separated and the surroundings of the foetus are such that it goes on developing, in so doing the intestines are pushed up and back, the amnion and chorionic

layer attaching itself to the peritoneal covering of whatever it comes in contact with. Most of the cases have serious symptoms from the foetus developing or dying and are operated before term. Some go to full term and then are operated for an abdominal tumor which produces septic symptoms, the foetus having died. The real condition not being diagnosed until the abdomen is opened.

The foetus may be carried for years, becoming a lithopedion. This is more apt to become so when the foetus is intra-peritoneal rather than extra-peritoneal. A specimen of this kind was reported to the Clinico-Pathological Society a short time ago.

Cases have been reported where the foetal bones sloughed through the abdominal wall, also the rectum.

The peritoneum is said to digest the foetus in some cases, others becoming cystic and remaining so.

When it is recognized and operated at term the child is very apt to be deformed on account of not having the proper protection; yet some are perfect.

Some are over-developed, causing rupture of the sack or there may be hemorrhage into the sack ending its growth.

The foetal movements are more painful and severe and seem like shocks to the abdominal wall. In coming to term they develop labor-like pains, but there is no regularity about them and are referred to any part of the abdomen, ending in the region of the uterus.

How would you diagnose the condition when at term and the foetus alive?

The physician could not diagnose it unless he would make an abdominal examination and even then fail except to say that the woman was pregnant unless the history would lead him to suspicion it.

He would likely find irregularity of the abdomen, absence of uterine contractions, closeness of foetus to the abdominal wall, the peculiarity of the pains and by bimanual examination finding the uterus enlarged to near the third or fourth month, that is conditions being favorable.

The treatment for this would be laparotomy and the earlier the better. Some operators recommend removal of the placenta at once, tying off the blood supply; others prefer to pack and allow it to slough.

Some advise letting the patient go until the foetus dies and then operate, thus allowing the placenta to become separated.

The danger being sepsis and hemorrhage.

You could close the abdomen with the placenta attached and see what nature could do with it. Later opening the abdomen is necessary.

A Chicago operator reported a few cases where the placenta was removed at the time of the operation with a high mortality.

After examining a case post-mortem and seeing the surface covered by the placenta you would think seriously before removing it immediately.

Mrs. M.; age 25; married five years; first pregnancy; came to me in August, 1907, with the following history:

Pelvic measurements as follows: spines 26, crests 29, troch. 32 and external conjugate 21 cm.

Last menstruation April 17th, 1907.

This flow was profuse, clots and some pain, followed by a brownish discharge which lasted for three weeks.

She went to a physician at this time and he thought she had an abortion, but as she did not flow the next month she concluded she was pregnant.

From this time on her pregnancy was normal except for a severe constipation.

The examination in August revealed a uterus in normal position but well back in the pelvis about the size for a four months' pregnancy and high up. I could not detect anything in the lateral regions nor was she sensitive.

I asked her to report in a month for another examination but heard nothing from her until she started with pains.

I had calculated she was due about January 22-24, 1908.

She began with pains on January 31, 1908, 6 A. M., when she was awakened from a sound sleep with a sudden snap, as if something had given way.

She came into a private room at the maternity and upon examination abdominally I could make out very little except that the abdomen was very large, tense and very sensitive.

Foetal heart to right flank.

In the vagina I could feel a large cervix high up, very little length to it. Could not make out any presenting part.

Later I decided the head was at the brim, but nearer the right side.

When she would have a pain she would make her abdomen very rigid and you could not make out any uterine contractions.

I saw her at intervals during the day and these pains con-

tinued, increasing in severity, starting in the epigastrium and ending in the pelvis. She began vomiting when the pain started and increased as they did, so by 11 P. M. that night she was in bad condition; pulse 130; temperature 101; respiration 40. Vomited material was dark green and had fecal odor.

By this time I began to look for advice, so I called Dr. E. W. Mercer on the 'phone and cited the condition of the patient to him and asked him if I should not open the abdomen.

He said to go slow and have some one see her with me, and I took his advice.

The consultant saw her that night and said he had his doubts as to whether she was in labor.

He advised giving her morphia, which I did.

The morphia had a decided effect in stopping the pains, and the vomiting ceased immediately.

Early the next morning, February 1st, the patient was much better as the influence of the morphia disappeared she began the same thing over again, then I started high enema to start her bowels as they had not moved properly for three days. After a time got result from enema and croton oil.

She went through her second day about the same as the first, except that the pains were more of a bearing down character. No change in the cervix except to soften.

Then I gave her morphia again, to give her a rest.

This day was a repetition of the other two. Then I began to think she had bowel obstruction, but had gotten some result from enema. I tried to get my consultant again, but failed, so let her go over night with morphia.

Next day, the fourth day—the 3rd of February, I decided to do something, although in the meantime the consultant suggested that I bring on labor.

On the third day I called another consultant to see her, but by this time had decided to dilate and deliver so with their assistance I delivered a seven-pound child alive through the uterus, the mother dying a half hour later with very little bleeding. We had recognized our mistake by this time. The child died the following day.

POST MORTEM.

Some blood in the abdominal cavity.

Intestine pushed up and back and walled off by a membrane resembling amnion and chorion.

Placenta attached to the posterior wall of the abdominal cavity extending from broad ligament on the left over the sigmoid flexure down over promontory of sacrum to the right side of pelvis and extending up the abdomen to third lumbar vertebra. The placenta measuring 7 by 8 inches. Left ovary and tube normal, right ovary in the edge of the placenta and the tube negative to the fimbria, which were lost in the edge of the placenta.

It was impossible for me to say just where it originated, but concluded it was secondary.

BUREAU OF GYNECOLOGY

PELVIC INFECTION: A PLEA FOR EARLY VAGINAL PUNCTURE.

BY

D. B. JAMES, M. D., PHILADELPHIA.

PELVIC infections may be classified so as to include all the organs located in the female pelvis, or into those located outside of the uterus, and including the connective tissue of the broad ligaments.

They may further be considered as puerperal or non-puerperal in origin, though the primary seat of infection, in the non-puerperal may have been in the vagina, Skenes' ducts, urethra, Bartholin's glands or the endometrium.

The germ theory explains all the cases of infection, and a glance at the following figures shows strikingly, that by far the greater number, are introduced from below and travel upward by continuity, or by contiguity of structure. Gonococci, 43 per cent.; streptococci and staphylococci, 24 per cent.; colon bacilli, 5 per cent.; pneumococci, 4 per cent.; tubercular bacilli, 1 to 3 per cent.

A study of these statistics shows that the majority of the infections involving the lateral regions, including the tube, ovary and connective tissue of the broad ligament, are bilateral, for it has been proven that gonococcic infections are invariably due to extension by continuity of structure, and begin in the cervical mucosa, then involve the endometrium above the internal os, and then, more or less rapidly the lateral organs.

Streptococcic and staphylococcic infections, on the contrary, begin in the vaginal tissue immediately surrounding the cervix, or in the cervix proper, which is richly supplied with lymphatics. Extension is by contiguity of structure and the lymphatics deposit the infecting germs or their products in the connective tissue surrounding the uterus.

They are therefore unilateral, unless mixed infection with the colon bacilli, which is frequently the case, arises, when they, in a majority of cases, will be bilateral.

Puerperal infections or those due to the streptococci and the staphylococci, are found in the earlier months of pregnancy, due undoubtedly to the number of induced abortions, where the infecting pathogenic germs are introduced by instrumentation and manipulation.

Delivery at term is not attended with the same risk as in the earlier months, for at that time it may be considered a normal physiological function and nature undoubtedly offers more of a protection then, than in the early months, when the normal function is interrupted.

Accepting the lymphatic theory of extension in the streptococcic and staphylococcic infections, theoretically and found to be the case clinically, the site of predilection will be in the connective tissue of the broad ligaments, as compared with the tubes, the latter becoming infected secondarily.

The majority of these cases begin as acute infections which rapidly become chronic, or they may begin as chronic cases. Their seat of origin, as before stated, is in the vaginal tissue surrounding the cervix, in the cervix proper or in the endometrium. In the beginning attempt should be made to limit the infection to the uterus, removing any retained products of conception, particularly placental tissue, by means of the finger used as a curette, and by the careful use of the placental forceps, avoiding the use of the metallic curettes that are liable to open avenues of infection, and convert an innocent case into one of fatal termination.

The removal and finger curetting is followed by an interuterine douche of fifty per cent alcohol, and Churchill's tincture, or iodine and carbolic acid, in equal proportion, applied to the whole endometrium. No further interuterine manipulations are advisable.

Recent literature shows a tendency to avoid any surgical interference, leaving nature to expel the tissue as she would a

slough, on an infected external wound. The advocates of this method of treatment either tampon the vagina and the cervix, to hasten dilatation, or leave the case entirely alone, as far as any local manipulations or surgical interference is concerned.

Whether we remove or do not remove the infected tissue, immediate active supportive treatment should be instituted, to aid physiological resistance. Forced feeding with three full meals daily, with the addition to the diet, given between the meals, of milk, beef juice, and eggs, should be insisted upon. Alcohol in large doses is usually administered, though it may be questioned if it has any virtue.

Active catharsis should be obtained by the use of salines, following which two loose movements should be obtained daily, for the two-fold purpose of preventing auto-intoxication and to avoid any hard fecal masses coming in proximity to the lateral regions.

Elimination of toxic material is obtained by the free use of water; at least two quarts being administered during the twenty-four hours.

If it be found that the kidneys under this treatment are not secreting the normal amount, the Murphy treatment, of continuous enteroclysis is instituted.

Tepid to warm baths are given at least once daily, or if active febrile conditions are present, more frequently. In excessive temperatures, cold sponges may replace the warm baths.

The patient should have as cheerful surrounding as possible to obtain, a quiet room, plenty of sunshine and fresh air, and an agreeable attendant, who will carry out the treatment without alarming the patient.

Sufficient sleep must be obtained; if not naturally, then by use of some of the milder hypnotics.

The temperature and pulse are to be carefully watched and with the first indication of increase in either one, especially in those cases that have run a normal temperature, or in those in which the temperature dropped to normal following the emptying of the uterus, lateral involvement is to be suspected. Especially is this true when the increase is associated with pain, for while the infection is limited to the uterus pain never is an associated symptom.

Examination at this time will reveal little to indicate the extension except excruciating tenderness on the slightest manipulation.

As the inflammation progresses the tenderness subsides, to the examining finger is given the sensation of tension on one side and close to the uterus, which gradually assumes the character of stony hardness. Careful manipulation may elicit fluctuation, though this may not be possible, but the presence of pus is indicated by the firmness gradually increasing to the pelvic wall and posterior toward the cul-de-sac.

Authorities differ as to the advisability of instituting any surgical interference in this stage. Some advocate leaving the condition to nature, claiming that in time the pus will become sterile and the exudate absorbed. The writer prefers to interfere by means of vaginal puncture, draining away the pus by a free opening, then packing the abscess cavity and placing the patient in the Fowler's position to aid gravity. By this method one of the means of toxic absorption is removed, and the supportive treatment can be carried out more effectually, at the same time lessening the size of the resulting cavity, and not requiring such a long time for complete restoration to the normal.

Abdominal section is contraindicated in the acute or the sub-acute stage, and the unsexing of the patient should not be considered until all means are exhausted to effect a cure by other methods.

It is surprising how many cases will be restored to normal or at least have no symptoms to indicate previous infection, if given sufficient time.

In the chronic stage in the absence of pus and when there remains varying degrees of infiltration on the connective tissue, absorption may be hastened by means of the douche, given in sufficiently large quantity and temperature to produce a temporary hyperemia, thereby altering the circulation and bringing the leucocytes in close proximity to the diseased tissue. At least a gallon of water at the temperature of not less than 110 degrees should be used at a seance, and this should require twenty minutes for administration, and should be repeated twice daily. The free use of glycerine will further aid in the absorption, and should be applied in the form of tampons introduced after the douching and allowed to remain until the douche is to be repeated. In the late stages, pelvic massage carefully administered, or the use of the colpurynter may free some of the remaining adhesions. If after due trial and sufficient time, there still remain symptoms referable to unabsorb-

ed exudate, laparotomy is indicated, freeing the adhesions and if possible allowing the tube and ovary to remain in situ. Conservative operations in this variety of infections often give very satisfactory results.

In the non-puerperal variety of infection we have as a rule the results of extension from a gonorrhoeal infection of the cervix and endometrium, which has extended by continuity of structure and showing a predilection to involvement of the tubes and ovaries, in contradistinction to the connective tissue, as in the case of streptococcic and staphylococcic infections. Having extended by this method they invariably are bilateral though both lateral regions may not be simultaneously involved.

This variety of infection may be acute or chronic, the former developing into the latter, or the latter beginning as that condition.

Prophylactic treatment to prevent lateral involvement should begin with the acute infection in the lower genital tract, and more vigorously carried out with beginning infection in the cervix and endometrium. In from 30 to 50 per cent. of cases, no matter what treatment is employed, infection in the tube will follow infection of the endometrium, sooner or later.

The diagnosis and symptoms of later infection of this variety is the same as in streptococcic infection plus the evidence of gonorrhoea in the lower tract.

The same line of supportive treatment should be instituted.

As in the former variety, authorities differ as to the advisability of surgical interference in this stage, but all are a unit in the opinion that laparotomy is contra-indicated. In a period of six weeks gonorrhoea pus when confined in an abscess cavity will become sterile, and laparotomies can then be performed with a minimum amount of danger.

Fortunately not all cases infected laterally will develop into pus formation, but the great majority are thus inclined, with various degrees of terminal results from complete resolution, to permanent destruction of the tubes and ovaries.

With the diagnosis of pus formation, it is the writer's opinion that the sooner it is evacuated, the better for the patient. The route of selection should be through the vagina, which is usually attended with a minimum risk.

The incision must be carefully made and enlarged sufficiently to insure complete evacuation and free drainage, following

which the cavity is irrigated with a saline solution and then packed as in the previously described variety with gauze, wick drainage, or a rubber drainage tube.

As soon as possible the patient should be placed in the Fowler's position or allowed to assume a sitting position, to insure of better drainage.

A rise of temperature a few days following the operation indicates pus pockets, which should be immediately evacuated by the introduction of the finger, breaking up all adhesions.

After the first forty-eight hours the pack should be removed, and the cavity irrigated with a mild antiseptic and a fresh pack introduced.

This procedure is repeated daily until at the expiration of two weeks the majority of cases will have granulated to the surface.

The majority of cases so treated will not require any further surgical interference, and will to all intent and purpose, be perfectly well, and if examined a few weeks subsequently will reveal nothing to the examining finger.

In the unfortunate cases that do not attain such satisfactory results, prolonged local treatment as previously described, should be prescribed before, advising the operation of salpingo oöphorectomy.

When after thorough trial the results of the local treatments are unsatisfactory, the exudate not clearing up completely, nor adhesions absorbed, the abdomen should be opened and in the writer's opinion both tubes and ovaries should be removed, for experience shows that invariably cases upon whom we have attempted to do the so-called conservative operations or a single sided operation, will return within a period of a year with a similar condition for which we have operated, and will have to be subjected to a second operation with its attending risks.

Vaginal puncture and drainage in both the puerperal and the non-puerperal forms of infection is the most conservative operation we can perform, is attended with a minimum amount of risk, and allows the patient who is usually one in the prime of life, to retain the organs that are so often essential to her future happiness.

THE MENSTRUAL CYCLE OF NORMAL ENDOMETRIUM.

BY

NORMAN S. BETTS, M. D., PHILADELPHIA.

THE changes which occur in the normal endometrium incident to the phenomena of menstruation have an important bearing upon the differential diagnosis of a number of common intrauterine diseases.

The purpose of this paper is to briefly describe the normal endometrial menstrual cycle, pointing out the possibilities of confusion with such conditions as glandular hypertrophy, endometritis, pregnancy, glandular carcinoma, etc., when the curetted material is examined under the microscope.

For the purpose of description the menstrual cycle is divided into four stages, a post-menstrual, interval, pre-menstrual and menstrual. Each period presents a characteristic microscopic picture, though the four stages merge gradually one with the other and in practice, any one section may at times show markedly different appearances in different fields. The period following the cessation of menstrual bleeding lasts from three to five days, the interval or resting stage, ten or twelve days, the pre-menstrual about ten days and the menstrual period on the average four or six days. The duration of these stages is subject to some variation in different individuals and, as has been said, the transition from one period to another is gradual.

In describing the appearance of the various stages I shall confine myself for the sake of brevity to the microscopic picture, recognizing, however, that the naked eye characteristics may be of considerable value in differential diagnosis.

During the post-menstrual period the endometrium appears as follows: The surface epithelium is generally smooth and the individual cells are rather low with large nearly central nucleus. The same type cells line the narrow straight tubular glands. The spindle-shaped cells of the interglandular stroma are small with deep staining nuclei. In the deeper portions of the endometrium the stroma cells are closely packed together but near the surface there is usually a tendency to looser arrangement. Evidences of menstrual hemorrhage disappear very quickly—in a day or two at most.

During the interval stage the uterine glands begin to lose

their straight tubular character and appear more wavy in outline, with wider lumena. The surface of the endometrium is apt to appear less smooth and here as well as in the gland the individual epithelial cells are somewhat larger. Mitotic nuclear figures are occasionally seen and are, of course, indicative of increased rapidity of cell division, the increased number of cells keeping pace with, or resulting in the generally increased size and tortuosity of the gland. The presence of these mitotic figures will be referred to later in speaking of carcinoma where they are so numerous and characteristic.

During the interval stage the interglandular stromal cells are usually somewhat larger and more oval in appearance than in the previous stage. The size of this cell seems to vary considerably and I believe has a direct relation to the degree of vascularity or congestion of the endometrium. In inflammatory conditions (endometritis) where there is increased blood supply the stroma cell is always large while in the senile uterus and usually during the post-menstrual stage of the menstrual cycle when the endometrium is least vascular, it is a small narrow spindle cell.

It will be remembered that as the result of pregnancy the endometrium becomes greatly increased in thickness and vascularity as well as altered in histological characteristics and is then known as the decidua. It is now rather universally conceded that as each menstrual period approaches there is an abortive attempt at the production of this membrane, which only progresses to the formation of a true decidua in case the ovum becomes fertilized. In other words, the uterus prepares itself for pregnancy at each menstruation, the menstrual flow being the result of pregnancy having failed to occur.

During the latter part of the third or pre-menstrual stage the resemblance becomes more marked. The glands are now markedly tortuous and show numerous outbuddings of epithelium into the glandular lumen giving a corkscrew or plaited appearance. The cells are larger, the lumen is greater and the whole gland appears much increased in size. The change is most marked in the deeper parts of the endometrium so that there is some resemblance to the superficial compact and deeper spongy layers of the decidua. The interglandular stroma cells are now much enlarged and are round or oval or at times polyhedral from mutual pressure. They stain lightly and often bear a marked resemblance to the characteristic decidual cell

of pregnancy. Congestion is apparent and superficial oedema is frequently seen.

In the investigation of this subject the normal or approximately normal endometrium from some twenty cases was examined. Of these only one offered the opportunity for studying the actual menstrual stage, since curettments are not usually done at this time. This material was obtained a few hours after the cessation of the flow. Since according to other investigators the endometrium has taken on practically the characteristics of the post-menstrual stage by the last day of menstruation little information could be expected from our material. It did in fact resemble rather closely the characteristic post-menstrual endometrium which was first described.

Other investigators, notably Hitschmann and Adler, in Vienna, describe the menstruating endometrium as undergoing a progressive change from the pre-menstrual to the post-menstrual. With the onset of bleeding the thickness of the endometrium decreases, the division into a compact and spongy layer is less marked, and the glands decrease in size and tortuosity. Quite extensive areas of surface epithelium may be cast off by the accumulation of blood beneath, or bleeding may occur almost entirely by the passage of blood elements through the minute clefts between epithelial cells. These points we were unable to verify.

The practical value of a knowledge of these normal endometrial changes is as follows:

The most common intrauterine disease is gladular hypertrophy of the endometrium, which results from long continued congestion from any cause. This condition often resembles quite closely the pre-menstrual stage of the normal membrane, the difference being largely one of degree. The differential diagnosis in a case of mild hypertrophy may be largely assisted by a knowledge of the date of the last menstruation, in fact, this knowledge is usually necessary in making accurate diagnoses of all endometrial diseases.

The general resemblance of the decidua of early pregnancy to the pre-menstrual endometrium has already been pointed out.

In the diagnosis of endometritis the same points are involved. From a purely pathological standpoint we prefer to restrict the use of the term "endometritis" to cases which show the microscopic evidences of the actual inflammatory reaction.

However, the committee appointed in 1907 by the American Gynecological Association, to decide this point, have decided in favor of using the term to refer to all endometrial diseases except actual tumor formation, and from a clinical standpoint it is probable that this terminology is more practical. Using the term endometritis in this broader sense, it is often absolutely necessary for the pathologist to know the relation to the last menstruation in order to differentiate glandular and interstitial endometritis.

Lastly, in cases of early carcinoma, a confusion with menstrual or pre-menstrual endometrium is not inconceivable, especially when the available material is scanty or poorly preserved. In both there is proliferation of epithelium and glandular hypertrophy. Nuclear mitotic figures, while much more numerous in cancer, may be seen in the normal cells. Small, round cell infiltration is always seen around cancerous areas, but low grade inflammatory reactions are also frequent about many uterine glands. To be sure, a well developed carcinoma could not be mistaken for any other condition but in the earliest stages the possibility of confusion is sufficiently real to warrant mention.

In conclusion I wish to express my indebtedness to F. J. Frosch for assistance in the preparation of the histological specimens which were examined.

PREVENTIVE GYNECOLOGY.

BY

MARY DAVIS RIDGWAY, M. D., PHILADELPHIA.

By repairing the *cervix* at the time of repair of perineum after confinement, everything is to be gained.

One great step toward preserving the health of women was made when the procedure of perineal repair was adopted.

With cervix and perineum, both repaired a few days after delivery, and the proper precautions as to aftercare and rest taken, the woman is left in perfect condition.

The technique I have adopted is as follows:

Give a daily bichloride 1-4000 vaginal douche a week before delivery, if possible. Shave patient before or during delivery. A safety razor is preferable. After delivery of pla-

centa, if perineum is torn, apply 4 per cent. solution of cocaine on a pledget of cotton; turn patient, bring buttocks to edge of bed; insert speculum and examine thoroughly. If the cervical arteries are torn, take a stitch to control hemorrhage.

If afterbirth is adherent, remove with curette or hand and give intrauterine douche of one gallon bichloride 1-4000. If not adherent, give intrauterine douche bichloride 1-4000, and let patient rest until next day. This amount of time allows the uterus to contract and gain some resistance.

The next day be prepared with spirits of camphor, black coffee and stimulants. Have a hypodermic filled with nitroglycerine. Give the patient one-half teaspoonful of aromatic spirits of ammonia before operation. Repeat during, if patient becomes nervous, hysterical, complains of being cold, or if pulse varies much. This precaution is taken so as to be prepared for any bad effects from cocaine. Personally, have never had any.

If perineum is torn apply pledget of cotton saturated with 4 per cent. cocaine. Give one-half of hypodermic of cocaine in perineum as soon as it has become sensitized. Wait at least five minutes for this to act. Insert Sim's speculum and inject remaining half of hypodermic into the cervix.

Sometimes the uterus will have raised itself so high into the abdominal cavity, that it will be necessary to use a bivalve speculum, and then grasp the cervix by tenaculum which is passed at the side of speculum, close to side of vagina between the blades. Then remove bivalve speculum and insert Sim's speculum. This allows you to retain grasp upon the cervix. Carefully grasp anterior lip of cervix with a double tenaculum, including sufficient tissues to avoid tearing out. In many cases it is wise to grasp posterior lip also with another tenaculum, and make gentle traction.

Measure the depth of the uterus with a bullet tipped sound or intrauterine irrigator. This can be measured with the sound, thus avoiding the danger of puncturing the uterus. Then to cleanse the uterus, wipe out firmly with a curved, broad ligament clamp; the end of which should be carefully wound with a strip of sterile gauze so as to make it resemble a mop. When that strip of gauze is saturated, and the meshes are filled with shreds, apply a fresh one or use another clamp which the nurse has already prepared for you. From time to time use intrauterine irrigation. I have these gauze strips put up in pack-

ages of a dozen pieces each—two or three dozen are often needed. Sweep well around the uterus. If any rough places are found, use a broad rimmed curette with teeth on the inside. I often wrap this with one or two thicknesses of gauze. The difficulty has been that curettes used are too small. Empty the uterus of its clots. When satisfied that the uterus is clean, I irrigate with a gallon of bichloride 1-4000, and put in a narrow packing which is carried to the fundus. This drains out a great deal of accumulation. I make it a rule to give one intrauterine douche daily, and have the nurse give one vaginal bichloride douche. Remove drain the following day. Then apply a pledget of cocaine to perineum if necessary, insert speculum and give intrauterine douche 1-4000 bichloride. If there is any question of a clot having accumulated in posterior part of uterus, sweep around uterus with broad ligament clamp covered with gauze. Follow the routine of giving intrauterine douche for six days, when it is time to repair. It is well to wait this length of time because milk is established in the breasts. Some cases need only three or four douches. I prefer to make practice of waiting six days. Patient is now ready for stitches.

Stimulate and cocainize as for previous treatment, grasping the anterior and posterior lips with tenaculum. Draw down gently until cervix has become natural in length and form. If ragged edges trim them off. If edges seem slightly healed, rub off granulations with gauze over end of the finger, or use scissors or spoon curette. Carefully insert stitches. After stitches are in cervix, insert a narrow strip of gauze with edges folded in, which is to be removed at the end of two days.

Next step, if perineum is torn place finger in rectum and with piece of gauze over finger rub off the granulations, or use a spoon curette which easily removes them. With these surfaces freshened, repair. It is often necessary to use a little more cocaine outside, so as to make the deep stitches painless.

I have used leg straps often, but find frequently that the patient suffers more discomfort from being cramped from wearing these than from the repair. I use leg straps when limited to one assistant. If patient is at all calm, have her place her feet on my knees during repair. I have rarely placed patient on table for this operation, but have found it satisfactory to turn her around and bring buttocks to the edge of the bed. It excites the patient less and does not disturb the flow of milk. It

is rarely necessary to give an anesthetic, but that depends upon the patient, family and surroundings.

If the uterus does not seem to have much resistance by the fourth day, give an alum vaginal douche, one tablespoonful to two quarts of water, in the evening for a couple of days, and that gives the resistance desired. If much discharge ensues, I personally give a borax vaginal douche, one teaspoonful to a quart, using glass vaginal nozzle, (so as not to allow any pressure on the stitches). Treat stitches in the usual way.

After Treatment.—Require patient to remain in bed three weeks, then allow her to walk around the same floor for a week or two. Women are hurried onto their feet too soon. Their duties are too numerous and sexual relations are established too soon. In cases of primary and secondary operations it is often advisable to send the patient away for a month or two after they get up from operation.

In every case possible I believe it wise to remove the fragments of the hymen, because they have become, so many times, hypertrophied and are hypersensitive. The bleeding in these cases can be controlled by fine, interrupted stitches if done at primary or secondary operations. If done at any other time they are easily removed under cocaine, and fine stitches or vaginismus tube can be used to control bleeding or slightly stretch vagina. I will cite three cases, one case forty-nine years of age, one fifty-six and one sixty-five, in which great relief was given.

It is a difficult matter for a mother to give up three weeks' time later for a secondary operation, and allow a couple of additional months for convalescence. Much saving of time and expense is accomplished by its being attended to at the lying-in period. Some of the stumbling blocks in this method have been—upon looking into the vagina things look so bloody, bruised and torn that it makes one feel at first, "If nature can do anything for such a condition, let her do it." Since surgery has made such strides, and without fear we open the abdomen, place stitches in the walls of the heart and enter the brain, there is no ground for fear in applying surgery to the uterus, with surgical cleanliness. It can be thought of as an inverted tumbler, easy of access and always capable of being drained. To me an unclean uterus always presents the idea of a cesspool. It is a great strain upon the attending physician to wait and wonder at the same time, what that uterus is going to do, hav-

ing had well impressed upon his mind the terrible possibilities of its conduct.

I have followed this method in every kind of home in Philadelphia. The most forlorn unclean houses with only a neighborhood woman as an assistant. I have followed it in the class of fallen girls where their vitality is low on account of the character of their living, and the physiological action of heavy drugs, because it is the rule that the girl does not seek a Mission Institution until all hopes of getting rid of the foetus have failed. I have followed it among the rich.

The advantages of cleaning the uterus and waiting a few days before repairing are:

Discharges have lessened, swelling has gone—which are of great value in healing of the parts. There are possibilities of getting better union.

The danger of childbed fever and postpartum hemorrhage are positively eliminated.

By immediate examination after delivery, the source of hemorrhage can be determined. I had one case of severe hemorrhage in which I discovered a bleeding vessel in the anterior wall of the vagina, which no amount of hot douching would have controlled. I picked it up with artery clip and tied it off with a ligature. Much time is saved by knowing what one is about, instead of guessing what is the matter. Thereby the loss of much blood is prevented and the woman's strength is saved.

It has its diagnostic side. If you find a sudden high temperature, chills, fever and even fainting, there is no fear of septicemia, and the possibility of placing a patient under an anesthetic unnecessarily is avoided. I had one case of typhoid develop on the seventh day. If uterus had not been clean, I would have been anxious. In three cases I have seen high temperature, chills, fever, very high pulse. In the first case the woman developed an abscess of the breast, in the other two cases disturbance due to fissure in the nipple was avoided by applying local applications to breast and indicated remedy. By watching and treating the nipples with surgical cleanliness this complication could be avoided.

The advantages of cervical and perineal repair are:

Better general circulation.

No backache.

No debilitating, prolonged leucorrhoea.

Less constipation.

Less irritability of bladder.

Less nervousness.

Less or no pain during intercourse.

Retention of good looks, youth and vigor. In other words, she does not look like an old married woman with the backache.

The following are avoided:

Aversion to sexual relations.

Subinvolution and pendulous abdomen.

Cystocele.

Rectocele.

Prolapsus.

Procedentia.

Tendency to abortion.

Infection of ovaries and dysmenorrhoea, depending upon that condition.

Hysterectomy and double ovariectomy due to septic infection.

Cancer of the uterus.

I have seen two cases of childbed fever die. Resolved never to see one in my own practice.

Second case:—

Was a friend who was running a temperature after delivery. I accompanied the surgeon who curetted the uterus, expecting to find some retained afterbirth. He found lacerations of cervix, no afterbirth, only a few old, offensive clots. She followed the usual course: Chills, fever, terrible discharge. The patient was removed to the hospital and the abdomen opened. The large, right ovary was three inches across, filled with a dark fluid which was removed. She lived only a few days. The question arose in my mind, why cannot this kind of a death be prevented? Upon beginning practice I examined my first obstetrical case with a speculum and found lacerations of each side of cervix. Douched, but not intrauterine, 1-4000, and repaired cervix and perineum. Had a great deal of anxiety about this case, but she made a good recovery and a good repair resulted. Her discharge was profuse which made me wonder about the stitches in cervix. There was a slight odor. Then I waited with some of my next cases, until some of the discharge should subside, also the swelling of parts. I observed that they would have very little temperature in some cases, but frequently on the fifth to seventh day, patients would complain of loss of appetite, lips would be pale and temperature would invariably be slightly sub-normal. Then in a couple of days

temperature would be slightly above normal. Some would complain of pain in the ovaries, vaginal douching would control this temperature but not reduce the amount of discharge fast enough to make an early repair easy. I washed and curetted different cases on different days until at last I have adopted the method of curettage of every case twenty-four hours after delivery, unless contra indicated.

Before beginning this practice, and while house physician, the question in my mind arose, "Why cannot women be repaired soon after delivery, instead of having to undergo another operation?" After seeing the two cases referred to, die, I determined to see if there were a method to prevent childbed fever. These other advantages I have gradually observed. Have repaired eighty cases in the Florence Crittendon Mission, to which I am surgeon, have used this method in my private practice, and have concluded that much of the so-called gonorrhoeal infection of ovaries is in reality an infection due to the absorption of foul residue left in the uterus which forms a low grade of inflammation. Having consulted many authors upon this subject, the involvement of ovaries is attributed by them to be gonorrhoeal, in from sixty to ninety per cent.

I believe that the condition of infection of ovaries is due many times to child birth absorption. If so many patients are gonorrhoeal and ovaries have not already been involved by this described method, the danger of its extension is prevented by the continued antiseptic methods. The history of a large number of women give this answer to my question, "When did you begin to feel badly?" "After my first child was born." I think many a case has been sent to the operating table and the woman believes that she has been infected by her husband, when the infection is due to absorption from childbirth or after abortion.

To make a clinical comparison, I have had under my personal supervision, in the Florence Crittendon Mission, which is an institution for fallen women, eight hundred girls and women, many having at some time lived in houses of ill fame and most of them giving a history of living promiscuously for two or three years. I did not find the complaint or involvement of ovaries so universal in them as I have in married women who have had children or an abortion. This is not to say that the effects of gonorrhoea and syphilis are not terrible and destructive, but much is blamed to gonorrhoea that cannot be proven by statistics or the microscope. The arguments against this

procedure of cleaning the uterus and method of repair have been:

Danger of puncturing the uterus.

Danger of nurse carrying infection by douching.

Waiting until she is done having her number and is approaching the menopause, to avoid repeated repairs.

Others say:

Look at the poor Irish, German, Italian and Indian. See how they have a baby in a field or see how they wash the next day or three or four days later. These are no arguments. All of these women age much quicker than our American women, who take local treatments and try to preserve their health. These other classes have ovarian troubles and backache, accompanied by leucorrhoea, and many distressing symptoms.

I have made a study of these conditions in the poor districts. Have had an Italian interpreter while working in that quarter. During my stay of three months in a large hospital in southern Colorado, found the same conditions among Mexican and Indian women.

Arguments *for* this procedure from physician's standpoint are:

It prevents the family physician or general practitioner from being driven out of business or blamed for ignorance. The usual routine of a patient following childbirth, when she does not get strong and some time has intervened since laceration of cervix, she goes to his office and takes local treatment for varying lengths of time. When his courage gets up he advises repair of cervix. In many instances he loses the patient as a result of it, because he is blamed for not doing it at the time.

This thought must come to all doctors; the matter of time, and how can I afford to give it. The price of delivery with its proper care should be raised. The fee has always been too small. To lose one's whole night's rest and part of a day, may be a whole day besides, make ten calls after, is a losing proposition. All mechanics are paid double for night work. To do this the price should be doubled, in many instances quadrupled. Explain it to patients, rich and poor and it is rare when they will refuse to have it done. The poor woman can always tell you of some woman whom she knows of whose womb has come out into the world. The more intellectual woman readily consents.

Physicians cannot afford to give more of their time and

strength, which is their capital, than any other class of people or mechanics in the world, and only collect an average of 60 per cent. of their bills, expecting to leave proper provision for those depending upon them. A physician would not think of asking anywhere near the fee for a confinement that a gynecologist does for a secondary operation, and the gynecologist does not have any comparable anxiety of the case.

The patient who goes for a secondary repair invariably says that she ought to have been sewed at the time her baby was born and has supposed she was.

Another argument for this treatment:

It is unwise to allow a woman to become a nervous and physical wreck before repair. These cases often do not go to operating tables for a secondary operation until they are nervous, irritable, weak and the family relations are so strained that it will take a diplomat to remedy them.

With the support torn away and from the extra strain of marriage relations thrust upon her during the nursing period, the patient is made a wreck. I have been impressed by the voluntary history in a large number of cases, a few months after the baby is born, by the expression of aversion to sexual relations, describing their feelings as an all-gone feeling; half sick at their stomach the next day, and inability to be a wife. This is due to a sensitive cervix, which either has a laceration, scar tissue, is eroded, or is sensitive from being congested.

This seems like a sad state of affairs with the wife feeling that she should not have chosen the state of matrimony, and the husband feeling that he married the wrong woman, or that he has been married for a home. It is difficult for anyone to realize that things said by a person tired and nervous should be forgotten, and that the cause is based upon a physical reason. In some instances, upon being called into families where harmony is absent, I begin by inquiring as to the early married life. The usual reply is that conditions were all right until after the baby came, or until after an abortion. Then it is easy to demonstrate to the patient that as a result of her condition internally, which she cannot explain by localized pain, it is reflex due to tender cervix.

Some women say they cannot speak of such things or conditions to a man physician. If this is so, it will be overcome. It is a conceded fact that the mental and physical union is the perfect one, and it should be dealt with more openly. There

has been limited literature on the subject, but there should be more. Neither the patient nor physician should hesitate to question on this subject.

It is nature in its highest sense:

Upon entering the portals of an art gallery, notice the look of reverence and the hush that falls upon the people. Each person is impressed with a feeling of awe, respect and admiration. It is the beautiful portrayal of nature that creates this. Why cannot the same atmosphere pervade the teachings of social questions and thereby make patients less shy of speaking freely? This would insure more prompt treatment.

Speaking of the effect of this operation upon the social problem. We know in social problems there are two factors.

Cause and effect.

From two and one-half years' observation in one poor district, while a resident physician, I believe that the sloven and the drinker among married women have been caused largely by improper care. Take the mill worker and it is always a marvel as to how neatly she dresses on a little, and neatness is her chief asset. Visit her a year and a half after she is married and she has a few months' old baby. Her house is in disorder, her hair is uncombed, and a general forlorn condition prevails. She tells you of taking porter or beer to bring up her strength. Later you see her and she is firmly addicted. In talking of her case, she has only one story, and that is of despair. Among the women who have been repaired, I have never seen one become a sloven or a drunkard. The number of divorces in the United States in 1906 was 72,062. I believe this number would be decidedly lessened with proper care of women after confinement or abortion since a large percentage had had children.

Another preventive method in gynecology is:

Curette every uterus where you have a positive history of abortion.

The reason of the poor health that follows in such large percentage of women is due to absorption, and resulting disease of ovaries. No one is sure that the uterus is clean. I urge anesthesia in every case of abortion, so that necessary dilatation can be accomplished. To say that a uterus is empty is but a matter of conjecture, and no one can tell positively what is in a uterus unless he can see.

I urge the examination of girls who complain of dysmenor-

rhoea after being treated medically or locally for a short time. In most instances a flexion of some kind is present, and I urge dilatation and sewing in of a Wylie stem which can be worn with safety for a month and the trouble corrected. By overcoming these flexions much distress, congestion and so-called endometritis are avoided, also chronic congestion and degeneration of ovaries. It is distressing to see some patients suffer and to go through this twelve times each year. It is a great strain on their health, and often leads to the formation of a drug or liquor habit by taking these things to control pain. It is thought by some practitioners and the laity, to wait until the patient is married and has a child. That may cure the dysmenorrhoea, but I believe that it allows a deep seated nervousness to become established, and I do not approve of waiting. When a patient says she is nervous, beware, because these symptoms uncontrolled lead to insanity, which is a condition so prevalent that no state can properly cope with the problem.

Pathology does not give a cause for fibroids, but with so many flexions and version, the circulation is restricted in part of the uterus and the pressure of blood must go somewhere, thereby overfeeding another part. This condition may account for fibroids of uterus.

Stumbling blocks.—Frequently the uterus with a wide open mouth or slight tear does not present the aspect of a laceration.

In these cases the cervix shrinks into the body of the uterus and shortens or obliterates the cervix. I have only seen one case in which cervix was not torn. Gentle traction restores cervix to its proper length.

CONTRIBUTED ARTICLES

THE DIAGNOSIS OF PLEURITIC AFFECTIONS IN CHILDHOOD.

BY

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(Read before the Germantown Medical Society, December 19, 1910.)

As my short paper will deal mostly with the physical signs it might be well, before we go into the differentiation of the pleuritic affections in childhood to consider (for a few minutes) the differences between the adult and the puerile chest. Let me draw your attention to these plainly and concisely, in the same simple manner we do to the student in our teaching during his clinical course.

In the first place, the contour of the child's chest is more round than in the adult. That is, the antero posterior diameter more approaches the transverse diameter than in the more mature chest. The chest wall is thinner. The muscles are less developed. The fat layer is not so resisting. The bones are not so completely ossified and hence more resilient and in consequence of these several changes the sounds produced within the chest are louder and as heard, appear nearer the ear.

The bronchi are larger and hence the breathing is more bronchial than vesicular. Then too the smaller air cells are less developed and the full normal adult breathing is not produced. More connective tissue is found in the younger lung tissue, hence an acute congestion may give rise to the same evidences as an actual consolidation.

The ribs leave the vertebrae at a more obtuse angle than in the adult. This forces the lung more posteriorly where there is more room, hence auscultation over the back is very important as well as necessary in all cases. Then too as a result of this, the lateral regions are relatively larger and these must not be neglected in a complete examination. We too, have a higher position of the diaphragm and the presence of a large thymus to contend with which also tend to make a difference in the child's chest. The apices are not so well developed and hence less often the seat of disease.

The heart and the greater blood vessels are larger in proportion. The heart is situated more transversely, (the apex being in the 4th interspace and without the nipple line) hence this must also modify the sound and its location to some extent.

And finally, the type of breathing is somewhat different. We find here, not only the irregular jerky breathing of the infant, (which is perfectly normal) but in older children the abdominal type of breathing is more common than in the adult. The lungs often do not expand equally, very often respiration is carried on fully and perfectly with only the one lung operating for the time being. Then, too, the child will accommodate itself to gross changes more quickly and successfully than the adult. I have met children with an effusion sufficient to almost fill the one side of the chest, playing around as usual.

It is also well for you to consider (but not have defined) the ordinary deformities that we meet with in rickets and other constitutional diseases so common at this age.

Now—What differences do these several changes make in the physical signs? First, all breathing sounds are apparently louder, and nearer to the ear. There is more of the bronchial element, hence exaggerated puerile breathing is apt to be mistaken for pure bronchial breathing. The percussion sound is apt to be more tympanitic than in the adult, due mostly to the convexity of the chest, and then, too, we get a certain sense of resistance to the finger in percussion which we do not find in the adult. This is due to the elastic wall. This was very nicely demonstrated in one of my cases in the ward not long ago. Percussion is best performed in the sitting position and should be light, or the percussion note elicited over a thin layer of fluid will be drowned by the co-vibration of the lung beneath. Consolidation is more apt to be confined to a lobule than to a lobe. Flatness should always suggest the presence of fluid, but in young children with a large amount of fluid the note is never so flat as in adults, because the underlying lung makes itself manifest so long as it is not completely compressed. When the fluid is high, the note is often tympanitic and hyper-resonant beneath the clavicle. Subcrepitant rales should not be mistaken for friction sounds (a most common error) and, lastly, do not overlook the presence of fluid because of the presence of bronchial breathing, especially in acute cases. In fact the difference between a pneumonia and an empyema is often most diffi-

cult. It is in fact, impossible, at times to make a differentiation by the physical signs alone.

Now, as to the pleurisies themselves. All the common forms of pleuritic inflammations are found in childhood, namely, the fibrinous, the serofibrinous and the fibrino purulent. They are mostly secondary to diseases of the lung itself. Serofibrinous effusions are rare, and under the third year hardly ever found. Fibrinous pleurisy is almost unknown in infants. However empyema, or the purulent type, is very common, and is the most prevalent of all the different forms. It is usually secondary to pneumonia, less frequently the broncho pneumonia than the lobar. It is also a common complication to the infectious diseases, but even here it is usually secondary to some lung inflammation in most cases. Pleurisy is less frequently a complication of tuberculosis than in the adult.

The dry, or fibrinous pleurisy, usually a complication is almost unknown as an independent disease, and almost never in infants. It is generally localized over a pneumonic area. It is quickly or partly absorbed but adhesions may follow. It is recognized by the moist crackling sounds, found with both inspiration and expiration. It is quite superficial and constant. Let me repeat, do not conflict these sounds with the crepitant rale.* With these sounds we have the pain and the cough usually complained of. The temperature is moderate or nil and the disease runs a short and mild course. There is no dullness and no change in the voice or breathing sounds.

The serofibrinous effusions are rare under the third year. They have the early symptoms of the dry form but soon the serous effusion is thrown out and then the physical signs change. More fibrin is here produced than in the adult. By inspection there is apt to be obliteration of the intercostal spaces and bulging of the affected side. This obliteration of the intercostal spaces is rare in the acute cases, and may even be absent in the purulent cases, contrary to the widely accepted opinion. Vocal fremitus is but little changed in palpation, but depends on the amount of the fluid present. Percussion gives a marked dullness or flatness. Bronchial breathing and bronchial fremitus over the fluid is the common finding, and is generally more distinct the greater the fluid. Entire absence of these sounds is rare as compared to the adult. It is often impos-

* Crepitant rales are heard only with inspiration. They are uniform and are often changed with coughing. Friction sounds are heard also with expiration.

sible to distinguish between the bronchial breathing over consolidation and that over fluid, however that over fluid is generally more feeble and distant. Let me reiterate here: Flatness should always lead one to suspect fluid, in spite of the presence of bronchial breathing. The other symptoms are a rise in temperature, cough, with pain, prostration and anemia as the fluid accumulates.

Empyema or purulent pleurisy, on the other hand is more frequently met with, and demands our principal consideration, since on its timely diagnosis and treatment the life of the patient often depends. Hénoc has well said: "Latency of pleurisy is not based on the nature of the disease but on the carelessness of the physician."

This is due to the specific infection of a micro organism, generally the pneumococcus. It begins with the pouring out of a small amount of fibrin, serum and pus. This may or may not be sacculated.

If it is and the fluid continues to increase the adhesions are broken down and the pleural cavity becomes filled with the characteristic thick, yellow, odorless fluid. It is rare to have an empyema follow a serous effusion. It is usually pus from the beginning. The physical signs depend more or less on the amount of fluid present. Sometimes fluid can be demonstrated as early as the second or third day, however it is usually not until later. It does not necessarily follow that the pus is at the bottom of the chest. It may be equally distributed all over the pleural cavity, the lung being suspended in the fluid so to speak. If the accumulated fluid is sufficient we have a displacement of the adjacent organs, the heart, liver or other parts.

The symptoms: As I intimated, this being a complication of pneumonia, it usually follows a few days after the crisis or the temperature having reached normal. Hence, many cases are unrecognized because they are supposed to be a secondary infection of the lung or the pneumonia remaining unresolved. We here find a gradual return of the temperature, taking on the form of the characteristic pus wave. With this we have the pallor, cachexia, and anæmia. Respiration is quickened, cough is prominent, more of the suppressed short dry and harassing type. Dyspnoea may be present or not. The child lies on the affected side, to use the sound side for breathing and with the increase of the fluid we usually have a subsiding of the pain. It is even possible to have fluid present without either the pain

or the cough and then we have very little to point to a disease of the chest. If the case is allowed to progress without the proper interference, then it takes on the general appearance of a tuberculosis.

The physical signs are about the same in empyema as they are in the serous effusions; dullness or flatness on percussion, feeble breathing over the affected area, an obviously diminished excursion and a dragging of the affected side. With this we have the displacement of the several organs. The auscultatory sounds are more misleading because the respiratory murmur is often almost normal even with not an inconsiderable effusion. As I have said, bronchial breathing and bronchophony are more frequent in the acute cases, but are apt to sound as if coming from a distance. Rales or bubbling sounds are not heard as a rule.

Often it is impossible to differentiate a serous and a purulent effusion even when we take into consideration the clinical course of the disease as well as our physical findings. Then it becomes your duty to aspirate. If this is done antiseptically it need not be of very great moment. It should always be done as soon as we have a well grounded suspicion that an empyema is present, since it demands the immediate removal of the pus. In practice empyema often remains unrecognized for weeks. By timely exploratory puncture and operation good health could again be given to a child that might otherwise die from exhaustion, metastasis or other cause. If you meet with a dry tap, (and it is often well to point out to the family at the start the possibility of a negative puncture) then make sure your technic is not at fault. It may be unsuccessful because your needle is too small or too short, or it may be introduced too far. It is even possible to go entirely through a thin layer of fluid and into the lung.

The only other point to draw your attention to in these chest conditions is the possibility of confounding a pleurisy with a pericarditis. But if you remember the latter is rare in children and the heart is not displaced together with the friction rub accompanying the heart beat rather than the respirations you will hardly go astray. You can generally differentiate it from a left-sided pleurisy by the physical signs alone. Over the right side of the chest, in a pericarditis, the dullness will extend well beyond the sternum, while in a pleurisy it never gets much beyond the right border of the sternum. Over the left side of the

chest the pleuritic fluid will push the apex to or beyond the sternum and in a pericarditis it will likely push the apex upward and outward.

I will content myself with relating two cases to you only. They will illustrate the extreme types.

The first I saw at the Women's Southern Hospital. Joe M., age 8 years, had an enormous amount of fluid in the right chest, almost filling the right side. He had been sick for a long time and had the anæmia, prostration and hectic fever that suggested a tuberculosis. The intercostal spaces were obliterated and he had a marked dyspnoea. He was tapped and considerable fluid was removed with little or no benefit. A drainage tube was later inserted between the ribs and the pus allowed to drain slowly off. A resection could not be done at that time because of the grave condition of the patient. He was practically moribund, his dyspnoea had increased and he showed some signs of an edema of the opposite lung. After several weeks he had almost completely recovered. The lung expanding nicely and it occupied almost its original position.

The other case was one in the ward of the Hahnemann Hospital. Bernard H., age 6 years. In this case we were all satisfied as to the presence of fluid, for several of us had examined him at different times. He had the continued fever and the marked cachexia and other symptoms as well as the physical signs. Yet we could not find any fluid after repeated tapplings, and we likewise all took a try at that also. After being in the ward for upwards of two weeks he finally, one day, coughed up a great quantity of pus, evidently being a rupture of the abscess into one of the larger bronchi. He made a nice recovery. The fluid here had evidently been interlobular.

I have not attempted to define minutely all the differences in the physical signs of the several stages in which we find these patients. Neither do I desire to burden you with detail. Yet if I have been able to interest you in the major or gross changes, and the variations of the child from the adult I will feel that my endeavors have been fully repaid by your courtesy to listen.

POISONOUS EFFECTS OF TEREBINTHINA.

BY

CARL HERMAN WINTSCH, M. D., NEWARK, N. J.

(Read before the American Association of Clinical Research, Boston, Mass.)

IN writing up the symptoms of this case, I have arranged them so they can be easily compared with the symptoms as printed in most books on *Materia Medica*.

In this case the symptoms first appeared in the rectum, the patient injecting two drams of pure turpentine in his rectum upon misinformation.

A male, 54 years of age. Always in perfect health.

Mind.—* ¹² Patient very excited. ⁶ Anxiety; with weakness. ¹¹ He is dull and unable to fix attention. ⁵¹ Stupefied, insensible and comatose. ¹³ In severe agony.

Head.—⁵ He constantly cried out on account of pain in his head, ⁷ swaying backward and forward; ⁵² complained of fullness and dull pain as if from band around head, which would let up at times. Always worse at night. ⁸⁰ When he awoke in the morning he was weak and bewildered. ⁸¹ Vertigo and sick feeling upon standing, staggering about when on feet. ⁵⁴ Tearing pains in head mostly on the right side. ⁵³ In bones of head he felt sticking like pain which was relieved by rubbing head.

Eyes.—⁸ Pupils contracted, eyes sunken and surrounded by dark rings. ⁹ Vision was blurred and he complained of seeing black spots before his eyes. ⁵⁶ Intense pain in right eye, and the eye felt hot to touch.

Ears and Nose.—⁵⁵ Ringing and ticking in the ears. ⁵⁷ Had nose bleed and a watery discharge from the right nostril. ¹⁰ Very deaf.

Face.—²⁴ Pale and anxious look; ²⁵ sunken and despaired look. Lips sore and crusty. ⁷⁴ His face felt as if it were drawn up and dry.

Mouth and Throat.—⁷⁵ Burning sensation of tongue; ⁸² it is dry, very rough and heavily coated. ⁷⁶ Scraping in throat. ²⁶ Has a hacking cough and difficulty in swallowing.

Stomach.—¹⁴ He had an intense thirst, and craved for bread with butter or lard on it. ¹⁵ Nausea and vomiting of yellowish mucus. ³⁷ griping pain in pit of stomach, aversion to meat.

* Numbers indicate consecutive symptoms as they appeared.

³⁸ Complains of pain and rumbling in stomach. Intestine and stomach inflamed; pain on slightest touch. ³⁹ Relieved when drawing up his knees, or upon expelling flatus; ⁴⁰ eructations also relieve. ⁶⁴ Has a feeling in the stomach as if a hard substance were in it. ⁶⁵ Complains of heat in the epigastric region.

Abdomen.—¹⁶ Enormously distended; ¹⁷ rumbling and gurgling during day, with colic at night. ²⁷ Has griping with soft stool. ²⁸ Patient bends up double on account of sharp pains, and pains extend down thighs. ⁴² Abdomen feels cold and retracted at navel. ²⁹ Extensive tympanitis and sensation as if the intestines were knotted up. ⁴¹ Pressure below diaphragm, worse on right side; ⁴³ cutting, griping, drawing, burning pain. ⁴⁸ Glands in groin are swollen and painful; ⁴⁹ has sensation as if he were ruptured. ⁵⁰ Drawing in groin and thighs. ⁸³ Cutting pain in testicle.

¹ *Anus.*—Burning; during and after stool, parts are swollen and red. ² Tickling, crawling sensation, intense itching, constant tenesmus and discharge of yellowish mucus. ³ Haemorrhage from bowels. ⁴⁴ Stools irregular, pasty, soft and mixed with blood, with colic and burning in anus. ⁴ Mucus membrane of rectum prolapsed and ulcerated.

Urinary Organs.—¹⁸ Inflammation; cutting and burning pain in bladder extending to navel, worse when lying quiet. ⁴⁵ Pains are spasmodic. ¹⁹ Severe burning pain in urethra when urinating. ²⁰ Frequent desire to urinate, but scanty. ²² Urine has odor of violets. ²¹ Albumen in urine. ²³ Strangury, bloody urine, and soreness of bladder; ⁴⁶ total suppression of urine. ⁵⁸ Urination involuntary. ⁸⁴ Later urine became light colored and copious, and contained a whitish yellow sediment. ⁴⁷ With his cystitis he complained not only of burning in the bladder, but also in the region of the kidney. ⁸⁶ Entire loss of sexual appetite, but complained of erections being painful.

Respiratory Organs.—⁵⁹ Dryness and tickling in trachea, causing dry, barking cough; ⁶⁰ voice weakened, at times short, hurried and anxious breathing. ⁶¹ Spat blood at times. ⁷⁷ Mucous rales—in chest; ⁸⁵ pain in upper part of chest and complains of a burning sensation.

Heart.—⁶² Palpitation, which is worse in the evening. ⁷⁸ Sensation of oppression over heart.

Pulse.—⁶³ Rapid, full and hard, at times small and almost imperceptible, very irregular. ⁶⁷ Pulse ran from 90 to 140; intermittent.

Back.—³⁶ Complained of pain extending up to shoulders, drawing, throbbing and burning in character. ⁶⁶ Pain in region of kidney, when sitting up; drawing and burning.

Extremities.—⁶⁹ Pains in the joints. ⁷⁰ Limbs feel heavy, insensible, and loss of motion. ⁷¹ Muscles feel sore as if bruised. ⁷² Trembling of extremities. ⁸⁷ Could not walk, dragged foot in walking; ⁸⁸ ankles were stiff and swollen; ⁸⁹ numb pain in feet.

Skin.—³⁰ Buttocks very red, and vesicles from burn of turpentine. ³² Red spots all over body, erythematous; ³¹ like a scarlet rash; itching, sticking pain, very sensitive to touch. ⁷³ The skin was swollen and numb in places, but pressure caused pain.

Sleep.—³⁴ Sleeplessness, excited and tossing about. ³⁵ Awakens alarmed and dreams would awaken him.

Fever.—³³ Cold, clammy sweat over whole body with heat during daytime. ⁹⁰ Temperature ran from 96° to 100° Fahr.

EDEMA OF THE LUNGS.

BY

WALTER SANDS MILLS, A. B., M. D.

Professor of Medicine, New York Homœopathic Medical College and Flower Hospital.

EDEMA of the lungs is most often associated with chronic nephritis. It sometimes occurs in chronic valvular lesions of the heart with failing compensation. Less often the acute infections or anemia may cause it.

Edema of the lungs is always a symptom of some other condition. If the primary disease is treated edema may be averted, or, if edema supervenes, treatment of the primary disease may possibly cure the edema, but not often. The prognosis is usually bad.

I have never used either venesection or cupping in edema of the lungs and cannot speak from experience of their value.

Stimulation of the heart has been of temporary relief in some of my cases. For this purpose I have used *digitalis* in tincture, ten drops every three hours; or a drachm of the infusion every three hours. The tincture has been of temporary benefit only. The infusion has sometimes cured the edema and the patient has gotten up and about again. The *digitalis* did not

cure the heart lesion but compensation was restored and the lung condition disappeared.

An extremely valuable drug in edema of the lungs is *apis mellifica*—the honey bee. *Apis mellifica* will relieve edema of almost any part of the body, but in cases of pulmonary edema due to Bright's disease it is particularly useful. I have used it numbers of times with the most gratifying success. Like digitalis, *apis mellifica* takes a number of hours before it begins to act. It is best given in the 3x potency, that is, 1-1,000 solution. Drop doses should be given in water and repeated every two hours. The results are sometimes almost marvelous. In my service at the Metropolitan Hospital, Department of Public Charities, I have time and again seen old chronic Bright's disease cases, almost waterlogged, recover under continued use of *apis mellifica* sufficiently to be up and about and able to go home.

During the winter of 1909-1910 I translated an article on *Adrenalin* by Marcel Lermoyez and Charles Aubertin, from *Annales des Malades de L'Oreille, du Larynx du Nez, et du Pharynx*. In their article Lermoyez and Aubertin told of a number of rabbits that died of edema of the lungs after being given large and continued doses of adrenalin. This led me to think it might be useful in treating edema of the lungs in the human subject—*similia similibus curentur*. In March, 1910, and again in April I had an opportunity to try it out.

During my service at the Flower Hospital in March, one of my patients was an elderly negro brought in with symptoms of pneumonia. He developed an edema of the lungs which appeared to be hopeless. As the patient was in an extremely critical condition anyway I thought it would do no harm to try adrenalin, other measures having failed. I directed my house physician to give ten minims of a ten per cent. solution of the ordinary commercial adrenalin, hypodermatically, and repeat in three hours if the patient was still alive. The relief was almost immediate. The patient received five or six injections during the next forty-eight hours, and was finally discharged as cured.

A second case was a young woman dying of tuberculosis in my ward at the Metropolitan Hospital during April. The patient apparently was in extremis. She was gasping for breath, and physical examination showed an acute edema of the lungs. In this case also a ten per cent solution of adrenalin was pre-

pared and ten minims given hypodermatically. The dyspnea was much relieved in a few minutes and the patient had a peaceful sleep. She begged for the next dose, and the next. She lived for nearly a week after the first injection, whereas I had had doubts in the beginning as to whether she would live long enough for the hypodermic needle to be got ready.

After my experience in these two cases I feel justified in stating that I believe the hypodermic injection of adrenalin to be a most valuable addition to our methods of treatment in edema of the lungs. Its action is prompt, the relief to the patient is marked. Other methods may be used in connection with it if thought best.

MYOSOTIS PALUSTRIS (WITHER).

BY

M. D. VAN DENBURG, M. D., MT. VERNON, N. Y.

THIS remedy has not been proven, so far as I can learn, up to date. Thirty years ago (see Hering's Guiding Symptoms, Vol. VII) it seems to have been used clinically and results published. I transcribe the record:

"Chronic bronchitis: patient nearly dying: copious sputa, purulent; most profuse in morning, but present night and day: profuse sweats, especially at night: emaciation (great prostration; cannot get out of bed).

"Obstinate old coughs, with gagging or even vomiting during cough, while or immediately after eating; (vomiting of all food with the cough); expectoration very profuse, stringy, thick, purulent; difficult or at times easy; left lung worse, painful while coughing and sensitive to percussion."

This is a wonderfully accurate counterpart of a patient 73 years old, woman, organic valvular heart obstruction for years, unable to make more than the most moderate exertion. For four weeks she had been steadily growing worse and the end seemed not far off. Myosotis 2x, $\frac{1}{4}$ drachm in one-half glass water was given as the last resort; two teaspoonsful every one or two hours. In three weeks she was well from the cough, no expectoration, no fever, good appetite, and able to be about her room again. That was three years ago and there has been no return of the cough.

EDITORIAL

THE WOLF BILL.

No measure intended to regulate the practice of medicine in this state has ever been introduced that has the apparent crudities and contradictions, as has the bill presented on February sixth by Senator Clarence Wolf; not that censure should be placed upon Senator Wolf, for he only fathered the bill when it was handed to him by another Senator.

The Wolf bill is presumed to reflect the combined wisdom, talent and intent of the majority school of this state, and as such is a proper subject of criticism.

Let it be clearly understood at the commencement that the Wolf bill is a straight old school measure. It was nurtured, conceived, and delivered under old school patronage, and its parentage has no bar sinister of sectarian association.

The bill does not start with the usual phrasing of its predecessors, but its first sentence, couched in bold capitals, reads, "An Act RELATING TO THE RIGHT to practice Medicine and Surgery in the Commonwealth of Pennsylvania."

Without attempting to define what constitutes a Medical Doctor, or the Practice of Medicine, it states "That from and after the passage of this Act it shall not be lawful for any person in the State of Pennsylvania to engage in the practice of Medicine or Surgery, or hold himself or herself forth as a practitioner of Medicine or Surgery, or assume the title of Doctor of Medicine or Surgery, or doctor of any specific method for the cure of human diseases, or doctor of any specific disease, or to diagnose and treat disease, or to sign any death certificate . . . unless he or she has attended four successive and graded courses of not less than thirty weeks each in different calendar years in a reputable and incorporated school or college of medicine recognized as such by at least one of the State Medical Societies or Associations of this Commonwealth, and had received upon graduation from such an institution of Medical education the degree and diploma of Doctor of Medicine."

Further on in Section 1 it states, "that this Section shall not

apply to those persons who by the law of this Commonwealth at the date of the passage of this Act have been accorded the right by a licensing certificate to diagnose and treat disease." ("More especially the Act of March nineteenth, 1909, P. L. p. 46.")

The Act referred to in brackets is the Act regulating the practice of Osteopathy, and as the final Section of the Wolf bill repeals all other medical Acts on the statute book but that referring to the Osteopaths, they evidently intend to exempt the disciples of that cult under this act.

The "thirty weeks graded course" is repeated a number of times in the body of the act, and forms the only description or standard of the minimum course of study to be pursued: at no place is it defined what constitutes a "graded course" nor is there any specification or reference as to the number of hours per day required in class room or clinic.

A "Moonlight" college could qualify quite easily under the terms of this act, for the standing of a college is determined by its recognition by one State Medical Society or Association, not specified as being incorporated, and it would be a very slight difficulty to organize a body of men that would call themselves some sort of State Medical Society or Organization. Section 2 deals with the composition of the Board, which shall consist of seven active members, with the Commissioner of Health as a member ex-officio.

No mention is made that the members of the Board shall be of good standing in any state or local medical society or organization; but only requires that he be a legalized and licensed practitioner of ten years of practice in this state.

Section 4 specifies that the examinations shall be "limited to the following subjects: Anatomy, Physiology, Chemistry as applied to Medicine, Hygiene and Preventive Medicine, Pathology, Symptomatology, Diagnosis, Clinical History of Disease, Surgery, Obstetrics, Gynecology, Medical Jurisprudence and Toxicology."

The omission of *Materia Medica* and *Therapeutics* from the act in itself emasculates and sterilizes it. These are the two topics in which the practitioner comes into direct contact with the public, and if a post graduate test is required on any thing it is required here. The state is not supposed to be testing for laboratory experts so much as for safe clinicians.

At this point the opinion expressed by the American Acade-

my of Medicine in 1908 might well be quoted. Its report was as follows: "The opinion sometimes suggested of omitting from the test certain subjects because of diverse teachings, assuming if the candidate be fitted in the other subjects, it can well be taken for granted his college has fitted him in the topic omitted as well, is open to objections. It will be difficult to make clear to any one outside the profession that, should the college be trusted in those subjects apparently the most important, the college may be safely intrusted to the rest of his training as well."

Section 4 also contains the following: "A supplementary oral, or practical examination may be granted any candidate who has completed the written examination, OR MAY BE GRANTED IN PLACE OF THE LATTER at the discretion of the Board.

There is absolutely nothing that enforces any uniformity or equality in the character of the oral or practical examinations, or for making any provision for their being made a matter of record.

We presume that this was inserted, so that in case a man of pre-eminent attainments, as Dr. Osler, should come into the state he should not be subject to the necessity of the usual examination, but they drive men like Osler out of Pennsylvania, and this entire absence of legal restraint would create a condition so that if the personnel of the Board was low, a favored candidate might have an oral examination as his only test, and no check upon such irregularities be discovered.

It is certainly the low place in the fence that political sheep would seek to escape the Wolf.

Section 4 further provides for a final examination at the close of a second year in Medical College upon the following subjects: Anatomy, Chemistry as applied to Medicine, Physiology, Hygiene and Preventive Medicine.

In our school we understand that an accurate and complete knowledge of "Hygiene and Preventive Medicine" would imply an accurate and complete knowledge of the nature of disease processes, of the laws of immunity, of vaccine and serum therapy, and considerable other information not supposed to be possessed by a sophomore.

The last portion of Section 4 provides for the establishment of reciprocal relations with states having similar standards and reciprocating similarly with this state.

Section 5 exempts Medical Men in the United States Army.

Navy, and Marine Service, and physicians practicing within five miles of the border line, whose residence is five miles the other side of it.

The remaining portion of this section refers to certain business details, fixes the office at Harrisburg, provides a salary of \$2,000 a year and traveling expenses to each member, and the sum of \$20,000 per year for expenses.

Section 10 revokes all existing acts referring to medical practice, and specifies said acts by headings, as follows: "An Act approved twenty-fourth day of March, 1887, P. L. 1887, p. 42"; "An Act approved eighth day of June, 1881, P. L. 1881, p. 72"; "An Act approved the eighteenth day of May, 1893, P. L. 1893, p. 94"; "Act of the twenty-seventh day of April, 1909, P. L. p. 251."

All of these acts are to be superseded by the Wolf bill, but the act establishing Osteopathy, of March 19th, 1909, is not to be molested.

The Wolf bill provides for no higher degree of preparatory training than now enforced, using the identical standard of "a four years' high school course, or its equivalent"; whatever that means.

Owing to the vagueness of expression, and there being no exempting clause to qualify it, dentists might properly be supposed to be included under the terms of the act, as they certainly diagnose and treat disease.

As stated, the crudities and contradictions in the body of the act condemn it without any further criticism, but even if they were eliminated it is such an apparent effort on the part of the old school to eliminate or absorb the minority schools; its object is so obviously the creation of a medical monopoly that it will defeat itself by its own defects.

The act offers no additional safeguard to the public against incompetent practitioners, it lessens those it now has, and if the act was placed upon the statute book it would LOWER the standard, not raise it, and members of our school desire no lowering of the standards; they have always been in the van in raising them.

This act, or any act of a similar character that has merely to deal with products rather than sources is defective.

We have temporized too long in the medical acts, until the profession and the public are heartily tired of medical legislation; we have accepted too many make-shifts, and the only

real solution of the matter will come when we incorporate in our laws provision for the regulation of the sources of supplies.

There would be no need of examining boards, and the subjecting of a Doctor of Medicine to post-graduate tests if the medical colleges had subjected their graduates to a thorough and competent training.

A MEDICAL COLLEGE IS EITHER COMPETENT TO TRAIN A MAN TO PRACTICE MEDICINE, AND DETERMINE HIS FITNESS TO PRACTICE THE SAME, OR ITS CHARTER SHOULD BE REVOKED, and this vexing problem will only reach a permanent solution when some provision is made that will make a medical diploma accepted on its face value in the state in which it was issued. The Wolf bill is indeed a wolf bill and there is very little fleece to hide its wolfish nature.

D. P. MADDUX.

PERCY WILLIAM SHEDD, M. D.

IT is with regret that we announce the death of Dr. Percy William Shedd on January 9th, 1911. Dr. Shedd has been an able and valuable contributor to THE HAHNEMANNIAN MONTHLY for many years, as well as to homœopathic literature in general. In his death the editors have lost a valuable and able collaborator and the homœopathic profession a member that has contributed much that has been of value to our school.

Dr. Shedd was born in Washington, D. C., Aug. 11, 1870, his parents being Dr. Oliver M. Shedd and Elizabeth Crandell Shedd. His boyhood was spent in Poughkeepsie, N. Y., where he graduated from the Riverview Military Academy in 1889, and was honored with an appointment as instructor, which he retained for one year, entering Rensselaer Polytechnic Institute, where he spent two years. He became interested in Philology and took a post-graduate course at Harvard University. He taught in Public School 62 of Manhattan for seven years and was vice-principal of School 126 for one year, entering the New York Homœopathic Medical College and Hospital with the class of 1904, and receiving the second faculty prize for scholarship on graduating. In his senior year he was editor of the *Chironian*, and in 1902 he was assistant at Deady's Sanitarium, Liberty, N. Y.

After graduating, he entered practice in Manhattan and continued until ill-health rendered active work impossible, when he turned his attention to literary and research work. A master of ten languages, his services were sought to translate medical works, among them Graeff's *External Diseases of the Eye*, Rumpel's *Cystoscopy*, and Ribot's *Diseases of the Personality*, with original notes. He was a valued member of the staff of the *North American Journal of Homœopathy*, and recently conducted the "Medical Excerpts" of the *HAHNEMANNIAN MONTHLY*. Essentially a student of materia medica, his scholarly articles were sought both by American and by foreign journals. He wrote the "Ode to Hahnemann," in commemoration of the one hundred and fiftieth anniversary of the latter's birth. He published "Oceanides," a volume of original poems, and translations from the French, German, Spanish, Italian, Danish, Norse, Swedish and Russian in 1902, his "Clinic Repertory" (since translated into Spanish) in 1908, and at his death left unpublished a translation of Ibsen's *Poems*, and a translation of the *Organon*, which he regarded as his best work. He invented the Shedd potentizer, which is now in use in Manhattan. He succeeded in preparing pure strains of the nosodes Sepsin and Staphylocin for Homœopathic use, but was unable to finish Streptocin, as he had hoped.

He was one of the two American honorary members of the *Société Française Homœopatie*, a member of Alpha Sigma Fraternity, the Poongtang Club, the New York County and State Societies.

Dr. Shedd suffered from his college days with chronic interstitial nephritis, and four years ago had an attack of acute cardiac dilatation, from which he never completely rallied. Enforced inactivity, the impossibility of sustained mental or physical effort, and insomnia made life a burden, till he laid it down on January 9, 1911. He is survived by his widow, Josephine N. Day, whom he married in 1892, a son and a daughter. During the last year he made his home with members of his family, at Lansdowne, Pa. A man of great reserve, few penetrated it, to find beneath the qualities which make a man loved by his fellows: slow to give his friendship, once given it was loyal unto death.

THE SIGNIFICANCE OF ALBUMINURIA.

THE correct interpretation of the significance of albumin in the urine is a matter of great difficulty. There is, on the whole, a tendency on the part of physicians to attach an exaggerated significance to its presence and too great a readiness to diagnose an organic disease of the kidney on this urinary finding alone.

Clinical experience has demonstrated that there are many conditions associated with the presence of albumin in the urine in which there exists no serious alteration of the structure of the kidneys, and in which the ultimate prognosis is good. Among the less serious forms of albuminuria we note the so-called orthostatic albuminuria, which occurs very frequently in young persons. Another form of albuminuria occurring in the young is found in patients who are weak, frequently chlorotic and present signs of slight cardiac dilatation. Both of these types of albuminuria tend to disappear under proper treatment, leaving the kidneys in an apparently normal condition.

The albuminuria that persists frequently after an attack of acute nephritis is also the cause of errors in prognosis and in treatment. It is necessary to emphasize the fact that the persistence of albuminuria after an attack of nephritis is not necessarily indicative of a chronic progressive disease of the kidney. Von Norden states that an albuminuria of this type may persist twenty years or even longer without any other sign of renal disease and without any impairment of the general health. In most of these cases the amount of albumin is small, and is usually discovered accidentally during routine examinations.

Unless the case has been under observation for considerable time, it is almost certain to be mistaken for a case of chronic nephritis and a bad prognosis given.

The albuminuria present in the early stage of pulmonary tuberculosis most frequently clears up without the development of any further signs of renal disease. It is probably due to a transitory nephritis such as is often seen during acute infective diseases.

The albuminuria occurring as a complication of diabetes is at times quite harmless, and after persisting many weeks subsequently clears up. It is true that this variety of albuminuria is difficult to recognize because of the fact that acute nephritis

and chronic parenchymatous nephritis, both formidable conditions, may occur during an attack of diabetes. Experience seems to indicate that it is not wise to hastily modify the diet of a diabetic on the mere presence of albumin alone, as it has been found that the albumin is likely to diminish or to disappear with the diminution of the glycosuria and the general improvement of the patient.

The differentiation of these more or less harmless varieties of albuminuria from those forms dependent upon serious organic diseases of the kidney is not always easily made. The presence of a small number of casts has not the diagnostic significance usually attributed to it before the introduction of the centrifuge. The presence of granular casts, waxy casts and fatty casts, however, are conclusive evidence of the existence of nephritis. A few hyaline casts, especially in a person past fifty years of age, have little or no significance. It must be remembered, however, that in chronic interstitial nephritis casts may be few or even absent. An examination of the state of the heart and blood vessels affords probably the most certain means of distinguishing the harmless from the organic types of albuminuria. Hypertrophy or dilatation of the heart with or without distinct signs of changes in the blood vessels positively exclude a functional albuminuria. An increase in the blood pressure is a frequent accompaniment of albuminuria dependent upon organic renal disease while it is absent in cases of functional origin. Despite the difficulties involved, it is the physician's duty to attempt to arrive at an exact understanding of the significance of albuminuria in every case. Aside from the injustice and mental anxiety entailed upon a patient by the physician mistaking a case of functional albuminuria for one depending upon an organic disease of the kidney, the confinement to bed, absence of exercise and the rigid diet often enforced, lowers the patient's general health and he is often converted into an invalid and a neurasthenic.

GLEANINGS

EFFECT OF TUBERCULOSIS ON THE HEART.—Pottenger in *Archives of Internal Medicine* says:

1. A relative low blood-pressure is found in tuberculosis, especially in advanced tuberculosis.
2. The factors which favor low pressure are the effect of the toxins on the vasodilators, the weakness of the heart muscle and general wasting.
3. The factors which have a tendency to maintain pressure are hypertrophy of the heart muscle and thickening of the systemic arteries.
4. Thickening of the systemic arteries occurs perhaps as a result of the action of the toxins on the vessel wall and is found especially in patients who have had tuberculosis for some time.
5. Myocarditis is a condition very common in advanced tuberculosis and one which, if recognized, yields to appropriate treatment in many instances.
6. It is difficult to give an opinion on the heart tones in advanced tuberculosis because conditions surrounding the valves are changed by such things as infiltrations, cavities, emphysemas and contractions.
7. In the majority of advanced cases (99 out of 130) the heart is displaced and working at a disadvantage.
8. In estimating the size of the heart it must be remembered that as the heart pushes over to the left it pushes backward and consequently the lateral diameter as taken on a level with the fourth interspace does not give an adequate idea of the real or true size of the heart; also that the hypertrophy of the right heart often throws the left ventricle backward, producing the same result.

CLINICAL LECTURE ON KIDNEY PAIN.—By E. Hurry Fenwick, *British Medical Journal*, January 7, 1911.

Fenwick treats of early dilatation and infection of the kidney pelvis, as he insists that such conditions as large hydro and pyonephroses are due to overlooking the early signs of these lesions. He finds certain subjective symptoms to be of considerable inferential value. When such causes as sugar, ingestion of alcohol, etc., can be eliminated, excessive thirst points to renal insufficiency or recent inflammatory conditions. With pelvic dilatation or stone, patients sleep upon the affected side to limit motion, while with inflammation of the cortex (corticitis) and when the kidney is fixed this is impossible. Intermittent diuresis will gradually lead to dilatation of the pelvis. This is true in diabetics and Fenwick has found it borne out upon the operating table.

In 80 per cent. of patients suffering from renal pain, in which stone, tuberculosis and cancer were absent, the pelvis was dilated. Dilatation was gauged by number of finger tips which could be pushed into pelvis after urine was aspirated. Normally it is possible to insert only the tip of one finger, and it should not be freely movable. The principal causes

of dilatation were: Aberrant vessels to upper or lower poles which cause diuresis from being stretched or tugged upon, or from causing a bending of the ureter, malinsertion of the ureter, axial rotation of a mobile kidney and softening of pelvis at its insertion into ureter. He outlined the usual treatment of these conditions. When the orifice of the ureter is abraded the pain is severe and stabbing and is localized at a small spot at the junction of the last rib and erector spinal muscle.

With dilatation of the pelvis this merges into a dull, aching discomfort in the same location, but covering a considerably larger area, moderate attacks of renal colic which can be easily controlled by heat or morphia, and abdominal pains. Between attacks the patient suffers from a dragging pain which is better from rest and often improved by a kidney belt. With infection the pain becomes agonizing and extends down the leg and groin and relief from rest, morphia, etc., is slight. Bladder symptoms are also usually present.

J. D. ELLIOTT, M. D.

MINER'S NYSTAGMUS AND FORMIC ACID.—Having heard that formic acid had been recommended in paralysis agitans and kindred disorders, Percival tried it on some cases in the Eye Infirmary at New Castle-upon-Tyne, enjoining the patients to give up underground work. One case he reported where the patient did not discontinue work, who reported cured after some months. Another case "with a persistent nystagmus that could not be stopped for a moment, even after sewing up his eye." He had been off work for 18 months and had been regularly treated at another infirmary. It was the most marked case he had ever seen after a period of rest. He was given M. v. of formic acid (25% solution) in water three times a day. The next week the dose was increased to M. x., and the next week the nystagmus was only elicited on his looking upwards. He is now working above ground.—Dr. A. S. Percival, *Ophthalmic Review*.

WILLIAM SPENCER, M. D.

MALINGERING TEST-TYPE WITH RED LETTERS.—The author proposes in cases of determined malingerers that lid holders be used in both eyes to prevent the persons examined excluding the so-called bad eye from seeing. An intelligent malingerer will do this so quickly that he can easily deceive the examiner. Another aid to the detection of malingerers is to seat the person close to a mirror, when the closeness of the mirror will lead him to suppose that the types which he sees in the mirror are closer than they really are, and to read much more than he would otherwise. He had some reversed type made in pink color, so that they disappeared when a red glass was placed in front of an eye with normal vision for black letters. Having proved to the patient whose so-called good eye has been covered with the red glass that he has no trouble in reading black letters, he suddenly turns the patient and makes him look at the pink letters reflected in the mirror. The patient, thrown off his guard, reads the pink letters with the so-called bad eye, thus proving himself a malingerer.—Dr. Gaupillat, *La Clinique Ophthalmol.*

WILLIAM SPENCER, M. D.

GLAUCOMA CURED BY A SIMPLE SECTION OF THE IRIS.—The author has always thought and maintained that the curative property of an iridectomy in glaucoma lay in the fact that in doing an iridectomy one cuts through the circular plexus of nerves which surround the iris. The excision of a piece of the iris would therefore be unnecessary. This sectioning of the iris is, however, difficult and dangerous in ordinary cases of glaucoma, on account of the danger of wounding the lens. One might think of drawing the iris out and cutting through it with the iris scissors, and then replacing the iris. The objection to this is that such a procedure would be dangerous not alone to the eye operated on, but also to the sound eye, which frequently responds to this step with a glaucomatous attack. The occasion to try the sectioning of the iris where the danger of wounding the lens was not present occurred in a boy of 12, the subject of a traumatic cataract in the right eye. Most of the lens matter had already been absorbed, but a thick capsular remnant still occupied the center of the pupillary area, reducing the vision very much. From this capsular remnant a grayish filament extended to the center of the cornea. Through an incision in the upper part of the cornea a part of the capsular remnant was removed with forceps, but the filament resisted even a strong pull with the forceps, and was cut through, close to the corneal insertion, with a pair of de Wecker's scissors. In connection with this the remainder of the capsule was extracted, and the pupil at once became black. At the end of four to five days the eye was the seat of a glaucomatous attack. No iridectomy had been done at the time of operation, and the iris had been caught in the corneal wound. He does not think, however, that this was the cause of the attack, but blames the violent traction made on the iris at the time. Tension rapidly increased to +2, and frequent insillation of pilocarpin were ineffectual in reducing the tension. He then decided to try sectioning of the iris. Through a corneal incision, a little up and in from the first incision, the de Wecker scissors were introduced, and the iris cut through, with one cut in the diameter lying opposite to the incision. The lips of the iris wound spread widely apart, forming a large V. All the glaucomatous symptoms disappeared, and the patient counted fingers at one meter without correcting lenses.—Dr. Ch. Abadie, *La Clinique Ophthalmol.*

WILLIAM SPENCER, M. D.

WHEN SHALL WE OPERATE IN PUERPERAL SEPSIS?—Polak (Brooklyn), in writing about his observations of two hundred consecutive cases says that each case of postpartum or postabortal infection must be studied individually and an accurate diagnosis must be made on the clinical, bacteriological and blood findings before any treatment is instituted. Nature is competent in the majority of instances to localize and circumscribe the infection. Curettage, douches, and examination during the acute stage break down barriers and open avenues for the further dissemination of sepsis to the myometrium, parametrium and adjacent tissues, and the danger of curettage increases with each month of pregnancy. Enormous pelvic and abdominal exudates may disappear without operation, and in time enlarged ovaries, tubes, etc., may assume their proper size and function, and as long as the patient's general condition improves, no surgery is advisable. All operations are attended with less risk after the acute

stage of the infection has subsided, and an exact diagnosis is more easily made at this time. After the uterus is thoroughly emptied the pelvis should be left absolutely alone, and we should make every effort to support the patient and increase her natural blood resistance. Extra peritoneal drainage of local foci should be elected when possible, either by incision just above Poupart's ligament, or by posterior vaginal section, and when this is impossible, because of an inability to determine the exact anatomical relations of the local foci, an exploratory laparotomy is justifiable in order to make an exact diagnosis, and determine upon the safest route for drainage. Operative interference in the acute stage of sepsis is only indicated in general purulent peritonitis, postabortal pelvis peritonitis, infected tumors in or near the genital tract, and uterine rupture, when the rupture has occurred in the course of labor, and has been handled outside of a well-managed maternity. Finally, thrombophlebitis is a conservative process on the part of nature to limit the infection, and any form of pelvic manipulation only tends to break down and separate parts of these thrombi, extending the infection to the more remote parts, thus jeopardizing the patient's life.—*Amer. Jr. Obs.*, Vol. 62, 100.

THEODORE J. GRAMM, M. D.

CONDITIONS SIMULATING TUBAL PREGNANCY.—Crossen discusses a number of cases which simulated tubal pregnancy. Gonorrhœal salpingitis may lie dormant, after the acute symptoms have subsided, for several years, and an acute exacerbation may occur at any time. Such a condition must be excluded by inquiry for a history of gonorrhœal symptoms, careful examination for evidences of a chronic urethritis, Bartholinitis, endometritis or salpingitis; and staining for the gonococcus any suspicious discharge that may be obtained from the urethra, vulvo-vaginal glands, uterus or vagina. In chronic cases negative findings do not exclude gonorrhœa, for the gonococcus disappears from the discharge after a time. An early miscarriage, if associated with a tumor or followed by mild salpingitis, may very closely simulate tubal pregnancy. If a shred of tissue is passed it may be examined for chorionic structures. In a case which cannot be decided otherwise, curetment is advisable to obtain tissue for microscopic examination for chorionic villi. A pregnant uterus may present very misleading conditions: *e. g.*, irregular softening, displacement; hyperesthesia with displacement or irregular softening or an associated lateral mass. An unsuspected tumor in the pelvis may give rise suddenly to severe disturbance, and the early symptoms of pregnancy (missed menstruation, stomach disturbance, breast tenderness and softened cervix) often appear without satisfactory cause. Salpingitis, appendicitis and perforation in the gastro-intestinal tract may, in rare cases, come on so suddenly and progress so rapidly as to suggest internal hemorrhage from extrauterine pregnancy. Usually in these conditions there are preceding or accompanying symptoms which point to the true nature of the disease. Fulminating pelvic oedema with its sudden onset and the rapid development of alarming symptoms may closely resemble extrauterine pregnancy. In this, as in other conditions of nonhemorrhagic shock or depression, there is not the persistent blanched condition of the skin so characteristic of profuse hemorrhage. The pulse, also, though rapid, is likely to have

better volume than after a severe hemorrhage.—*Amer. Jr. Obs.*, Vol. 62, 118.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF CONTRACTED PELVIS.—Prof. Menge (Heidelberg) has considered this whole subject by taking into account the modification in the indications for treatment brought about by newer obstetric operations. In addition to careful external measurements, the internal diagonal conjugate should be measured, subtracting therefrom $1\frac{1}{2}$ cm. with a low symphysis, and 2 cm. if the symphysis is high, thus finding the conjugata vera. The indications may be formulated as follows: All pelves whose true conjugate is shorter than 10 cm. may be divided into three groups: Group 1. Contracted pelves of the third degree. True conjugate $\frac{5}{2}$ cm. and less. Delivery per vias naturales is impossible. Treatment: Cæsarian section, the child living or dead. These cases should be removed to the hospital on making the diagnosis, for the Cæsarian section can never become the property of the general practitioner. These cases are quite rare. Group 2. Contracted pelves of the second degree. The true conjugate varies between $5\frac{1}{2}$ and $7\frac{1}{2}$ cm. Favorable spontaneous delivery is impossible. Treatment: The physician must determine whether the child is living or dead. If the child is living and if the patient can be removed to the hospital, this should be done, no matter what the position of the child. A living child is only possible from Cæsarian section or from an operation which widens the pelvis. If the child is dead, or if the patient has fever or cannot be removed to the hospital, craniotomy is to be considered. In transverse position: version and perforation of the aftercoming head. In neglected transverse position with dead child: decapitation. In breech presentation of dead child: Extraction with perforation of the after coming head. These pelves are also rare. Group 3. Contracted pelvis of the first degree. Conjugata vera $7\frac{1}{2}$ cm. and over. This group is the most important and interesting for the practitioner because this degree of contraction is the most frequent and because the treatment may be within the scope of the general practitioner. The physician should first determine whether the child is living. If dead and the case calls for delivery craniotomy should be performed. If the child is living, but if fever exist, craniotomy of the living child in primiparae is called for. Multiparae with fever and with living child in cephalic position should be removed to the clinic for an operation widening the pelvis may save both mother and child. If the child is living and the mother free from fever, the parturition is at first to be conducted by waiting. With patience and thorough asepsis a favorable spontaneous delivery is the rule. If, however, a favorable spontaneous delivery is precluded by other complications, like irregular presentation, breech presentation, vertex presentation, prolapse of the cord, or of the upper extremity, then these complications should be treated as usual in otherwise normal cases. If the living child under favorable obstetric conditions does not enter the pelvis solely because of disproportion between it and the pelvis, and if an indication for delivery should arise, the following possibilities exist: If possible removal to the clinic for an operation widening the pelvis. If transportation is not possible, the physician may be compelled to permit the child to die and then perform craniotomy on the dead child. If an

urgent indication for delivery arise on the part of the mother and if removal to a clinic is impossible craniotomy of the living child may become necessary. The cases requiring craniotomy in the first degree of contraction are most rare, so that the entire infant mortality by a waiting conduct of the labor and craniotomy is less than by the use of the high forceps, induced premature delivery, prophylactic version and craniotomy.—*Monatsschr. f. G. u. G.*, Vol. 31, 689. THEODORE J. GRAMM, M. D

THE PROGNOSIS OF PUERPERAL FEVER.—Jaschke's article presents an important forward step in the study of the subject. After referring to the several methods contributing to our ability to diagnose cases of puerperal infection, he says an important factor not sufficiently touched upon heretofore is the resisting powers of the affected person, and this leads to a consideration of the subject from its clinical side. His studies along these lines have indicated, as he says, that the prognosis also rests upon a careful and continuous observation of the function of the heart and of the vessels, while of course gynecological examinations and aids are not to be neglected. There is no longer any doubt that herein consists probably the most important factor of the prognosis. It has been shown that the paralysis of vessels and especially of the splanchnic in conjunction with the superficial vessels caused by the action of toxins represents a condition leading to a fatal termination in infectious diseases. This condition the heart endeavors to overcome by increased activity. Careful analysis of the circulatory conditions in puerperal fever has pointed to a trio of symptoms, a study of which may be most useful for the prognosis of puerperal fever. They are: (1) a relaxation of the more superficial vessels; (2) more or less pronounced decrease of the tonicity up to a complete paralysis of the vascular system dependent upon the splanchnic nerve; (3) a compensatory strengthening of the heart's action. The results of the author's studies may be summarized in the following propositions: In puerperal fever, just as in many other infectious diseases, there is great danger of the circulation stopping in consequence of paralysis of the splanchnic vessels; both for prognosis and for treatment it is of the greatest importance to watch the disturbances of circulation. In view of the importance of the tonicity of the splanchnic vessels for the maintenance of blood pressure, its decrease is an important factor in the circulatory disturbances in puerperal fever. The grade of relaxation of the splanchnic vessels depends particularly upon the severity of the disease. A less important factor is the presence of relaxation of the superficial circulatory system. As soon as the splanchnic paresis reaches a dangerous degree the fall in blood pressure thereby induced is compensated in all favorable cases by an increased activity of the heart. Since on the one hand the relaxation of the splanchnic vessels, on the other hand the compensatory increase of cardiac activity may be demonstrated clinically by determining the blood pressure and by regarding the condition of the second sound in the aorta therefore they present indications important for the prognosis. The prognosis is favorable in all cases where from the beginning there is no fall in blood pressure; also where the beginning fall in blood pressure disappears by removal of the splanchnic relaxation; also where with continuing splanchnic relaxation the blood pressure is restored to the normal height by compensatory increase of

cardiac activity, which clinically may be recognized by gradual increase of the aortic second sound. It is rather immaterial whether this compensation occurs spontaneously from tonic circulatory treatment. The prognosis is doubtful when the decreased blood pressure can only be removed by prolonged or strong therapeutic measures and when even then there is a tendency to relapse, recognizable by irregular variations of the aortic second sound; also when in the course of the disease there gradually occurs a decrease of the aortic second sound except in convalescence. The prognosis is absolutely unfavorable when with the just named decrease of the previously accentuated aortic second sound there is a gradually developing fall of blood pressure; also in all cases in which from the beginning besides the low blood pressure there is an insufficient activity of the heart (soft aortic second sound), if the latter cannot soon be influenced by therapeutic means. The reactive power and promptness of reaction of the organism and the fall of blood pressure caused by splanchnic relaxation which may be spontaneously overcome by means of therapeutic measures affecting heart activity (cardiac efficiency), not only admit of certain conclusions respecting the severity of the disease, but also concerning the resistance of the organism. The treatment of dangerous fall of blood pressure consists in the administration of remedies tending to increase the vessel tone and at the same time to stimulate the heart. Such remedies are digitalis, caffein and adrenalin.—*Zeitschr. f. G. u. G.*, Vol. 66, 423.

THEODORE J. GRAMM, M. D.

EARLY GETTING UP AFTER OPERATION AND THROMBOPHLEBITIS.—Scgweninger has reported the observation in Klein's clinic in Munich concerning this much discussed subject, and is led to conclude that every operation, even under our aseptic methods, is still to be regarded as a serious trauma and a great danger, to which the organism should only be subjected because of strictest indications, that is when the life or vital interests of the patient are to be preserved in no other conservative way. For the prognosis of the operation besides the activity of the heart and the constitution of the blood, the general conditions of the tissues, the ability of the tissues to respond to physiological stimuli are of great importance. An organism having relaxed or fatty tissues having diminished tonicity, should whenever possible receive a course of tonic treatment before being operated. Living in the country in good air, where the patients are left to themselves is usually not sufficient, since in most cases the conditions present are due to more or less unconstrained, irrational modes of living. General constitutional treatment prescribed by the physician (diet, massage, baths) will alone produce the proper results. The after treatment following gynecological operations should be graded according to the reactive ability of the patient: 1. Passive stimulating treatment in bed, posture, massage, baths, sleeping in cold air. 2. Active treatment in bed, gymnastic exercises as proposed by Schucking. 3. Active treatment out of bed, walking, breathing exercises in increasing grades. Resting in an upright position acts harmfully and is to be avoided as long as possible. The etiological causes named by Zurhelle, such as recognizable heart lesions, great anaemia, and undoubted wound infection, were not specially manifested in the cases observed at Klein's clinic.—*Monatsschr. f. G. u. G.*, Vol. 32, 3.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

Rhus aromatica is a valuable remedy for hemorrhage of the kidneys and bladder.

Muriate of Hydrastis will relieve many of the distressing symptoms caused by dilatation of the stomach.

Eupatorium perfoliatum, the *Medical Summary* says, is a very excellent remedy in intractable hiccough, curing when all other remedies have failed.

Plantago major. This remedy will cure the toothache of nursing women.

Ferrum phosphoricum is almost specific in many cases of "backache."

Fucus vesiculosus. A practitioner of wide experience says that *Fucus vesiculosus* is a "sure cure for goitre," especially so in children. The same remedy is also a valuable anti-fat drug.

Aspidospermine hardly ever fails to relieve asthmatic cases. It is not only palliative, but seems to exert a curative action in some cases. The remedy has been referred to as the "Digitalis of the lungs," and should be given in doses of 1 grain three times a day.—Dr. A. E. Hinsdale, in *December Century*.

Stannum iodatum is beneficial in coughs when the expectoration tastes sweet and slight amount of fever is present. Chronic coughs are especially apt to be benefited by the remedy. Many of the cases are just on the edge of contracting tuberculosis.—Hinsdale in *Century*.

Veratrum viride. Dr. J. Murray Moore, of England, considers *Veratrum viride* as superior to Aconite in the congestive stage of pneumonia when the heart is distinctly weak or somewhat degenerated, in which case he considers it unsafe to give Aconite.

Veratrum viride. The essential features of *Veratrum* are like those of Aconite except that the patient instead of being restless is absolutely calm. Few cases of acute fever have this calmness, hence *Veratrum viride* is not so often indicated as Aconite.—Hinsdale in *Century*.

Add to these symptoms two others equally important for comparison: 1st. Slow pulse. 2nd. Nausealess (cerebral) vomiting.—Ed.

Carboneum Sulphuratum 6 steadily improved a case of chronic plumbism with wrist drop, albumen in urine and other symptoms.—Dr. Galley Blackley.

HOMOEOPATHIC REMEDIES IN ACUTE PNEUMONIA IN CHILDREN.—(Dr. John Roberson Day, in the *Homoeopathic World* for August.)

Aconite 3x is indicated for nearly all cases at the commencement of the disease, before exudation; there is the high fever, dry skin, pulse full, hard and tense, the hard, dry, and painful cough with great restlessness. It calms the patient, reduces the fever, and produces refreshing sleep.

Bryonia 3x has been called by Dr. Dewey the remedy for pneumonia. It suits the cough, especially if there is an associated pleuritic stitch. It follows *Aconite*.

Phosphorus 6 or 3 will always be associated with pneumonia. It follows *Bryonia*, and is complementary to it. Since the days when Fleischmann prescribed for his pneumonia cases at Vienna, the success of *Aconite* and *Phosphorus* has been notorious. It is especially indicated in the lobar variety, and the peculiar constitution of *Phosphorus* leads us to prescribe it for the tubercular cases.

Antimonium Tartaricum 3 or 3x trituration is the remedy which I use more than any other. It especially suits the Broncho-Pneumonia, and when complicated with Bronchitis; it stands to Broncho-Pneumonia as *Phosphorus* does to Lobar Pneumonia.

Arsenicum Iodatum 3x assists in the final resolution, where there is crepitation and persistent rales.

With these five remedies the large majority of cases can be safely brought to convalescence and health, but when exceptional symptoms develop other remedies may be needed.

Veratrum Viride 1x when the temperature runs high and *Aconite* has failed to reduce it, when the heart is acting violently, the pulse hard and rapid. A red streak down the centre of the tongue is said to be a keynote for its use.

Then there are the constitutional remedies to be thought of. *Tuberculinum* 30 in weekly doses for the tubercular state. *Calcarea Carb.* 12 given occasionally to the rickety child, and *Syphilinum* 30 when we suspect a specific taint.

Besides the above therapeutic measures we must always avail ourselves of the adjuvants to treatment which will powerfully reinforce our efforts when properly applied. The sick room must be large, airy and devoid of all unnecessary furniture, curtains, etc. *Fresh air* is essential to success, and the temperature should be maintained at 60 to 65 degrees F. There should *always* be an open fire, even in summer, and the windows should be opened so as to regulate the temperature.

(Don't forget *Ammon. Carb.* in condition like that of *Antim. tart.* with excessive tendency to carbonic acid accumulation.—EDITOR.)

HOMOEOPATHIC REMEDIES IN PLEURISY.—(Dr. George Clifton in August *Homoeopathic World*.)

Aconite from 3x to 30 potency every hour. Brilliant success has followed the use of the higher dilutions; its action is always marked in the early stages, especially when due to exposure to cold and accompanied with fever. The pleura is specifically affected by *Aconite* as a definite irritant. Other symptoms are great thirst and hot skin.

Bryonia.—Should the fever continue with secondary lesions beginning

with a dry hard cough, sharp stitching pains and early fibro-serous effusion. Trinks early called attention to the use of this drug in all serous inflammations, and it will generally help in preventing circumscribed plastic pleurisy and so preventing adhesions (see under *Sulph.*). Also when relief is found by binding up the chest. The patient feeling better in cold air and drinking cold water.

Arsenicum album.—Wurmb again in the eighteenth volume of the *British Journal of Homoeopathy* says *Arsenicum alb.* is especially indicated in serous pleurisy, and he despaired of curing a case in which *Arsenicum* had not produced benefit, commending especially its power to deal with hemorrhagic effusion.

If complicated with Bright's disease, or if the fluid is long in being absorbed after the acute stage is passed, *Arsen. Iod.* comes in well.

Kali Carb.—If the violent stitching is not relieved by *Bryonia*, and the cough is dry and always worse about 3 A. M., especially in tubercular patients.

Arnica for traumatic conditions, especially when the cartilages feel bruised, wanting to continually move the body.

Apis, in early effusion, signs of hydrothorax.

Cantharis.—Dr. Jousset strongly recommends this drug if *Bryonia* fails to stop effusion, especially where there is little fever.

Sulphur for all plastic effusion or when other medicinal action seems to lose effect; when hydrothorax is threatened—symptoms worse when lying on the back.

Hepar Sulph.—See article in eighteenth number of the *British Journal of Homoeopathy* by Wurmb.

Digitalis must not be forgotten also in serous pleurisy.

China for a hectic condition.

A PROVING OF THYMOL.—Dr. Ralph E. Mellon has been conducting a proving of Thymol at Ann Arbor. Two men took the drug for one month about four times a day, beginning with the 3x and winding up with the 1x. The stomachs of the provers became so irritable at the expiration of the month that the proving was discontinued. No after effects were noted when the proving was stopped. Dr. Mellon's summary is: "The drug produces a typical sexual neurasthenia, and its application to this common condition naturally suggests itself.

"The chief symptom developed after two weeks was profuse seminal emissions towards the morning, every night for four successive nights, then one night's intermission and then emissions for two more nights. None of the emissions gave the slightest sense of relief in either prover, but they awoke tired and unrefreshed."

Lascivious dreams of a very perverted character were quite prominent, as, for example, copulation with animals.

"Much aggravated by mental or physical labor. Energy gone."

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M.D.

DISORDERS OF THE PERSONALITY.—Ribot, who was the first to formulate an essay of classification for the *diseases of the personality*, divided them into three chief classes: *Alienation*, *Alternation*, and *Substitution*; alienation being the transformation of an old personality into a new one; alternation, the succession of two personalities, with or without amnesia of one to the other; substitution finally, being the belief, above all psychologic and delirant, of a change of personality. Binet, prompted by these views, distinguishes, in the neuroses, *successive* and *coexistent personalities*. At any rate, it is really possible to place the majority of the disorders of personality in the divisions proposed by Ribot. Regis believes that they could also be englobed, perhaps in a more practical, clinical way, under the three following categories: 1. *Troubles of the conscious personality*. 2. *Troubles in the relations of the conscious and unconscious personalities*. 3. *Troubles of dissolution of the personality*.

The troubles of the conscious personality are those which tend to destroy the integrity of the conscious self. Due to the fact that they solely bear upon clear states of consciousness, they are characterized by not being complicated with amnesia, and by being distinctly appreciated by the patient, for whom they become a source of extreme anxiety or of delirant interpretation.

These disorders of the conscious personality, insufficiently studied until lately, are, in the domain of neuroses and psycho-neuroses, observed in *neurasthenia*, *obsessions*, and *tics* or *impulsions*.

The majority of the obsessed we have taken as types, exhibited troubles of personality of this class. Precise facts, as those exhibited by Janet, Seglas, and Regis himself, whom I am quoting here, easily explains their evolution.

A patient of Seglas suffering with obsession for 25 years expressed himself as follows: "I have the consciousness of being double; I feel within me two conflicting thoughts, one my own, which endeavors to reason without success, the other imposed or enjoined on me in some way, and to which I must always submit." Other patients of the same authority presented analogous sensations. One had the consciousness that his body is before him; another, a child, imagined, at certain moments, that he was left behind, and that a passing carriage carried him away, and was only reassured after a great deal of persuasion. Another still, not being able to seize upon the transition from a consented to an automatic gait, does not know any longer if it is he who walks, and then makes unheard of efforts to apply his consciousness to this unconsciousness. He was conscious on one side and unconscious on the other.

Likewise, a patient of Regis suffering from obsession of doubt of his judgment and existence came to believe that he dwelled beneath the ground,

and that this self who lived beneath the ground imagined himself to be near his observers and able to speak to them.

Such cases could be multiplied indefinitely, for there is no doubt that a few obsessed individuals are completely free from sensations of psychic disaggregation; sensations which appear to be explained by the state of organic exhaustion, which in the psychasthenic obsessed brings about a relaxation of the bonds normally uniting the various states of consciousness. This relaxation breaks the connection between the diverse states of consciousness and hence alters the unity of the Ego. In this manner, together with the *attentive* or *active consciousness*, where the fixing power is diminished, there is a tendency to the formation of another *automatic* or *passive consciousness*, a *secondary synthesis*, close by a *principal synthesis*, as asserted by Janet and Seglas. If one of the combinations is not conscious, the patient would not have the sensation of a division of self, and hence would not suffer; but as both are conscious, and the question here is only of the appearance and conflict between the voluntary or active consciousness and the involuntary or passive consciousness, the patient has the sensation of being divided into two, and this is the cause of his torture.

For this reason Regis and his co-worker believe that in such cases there is less a diminution than a fragmentation of the diverse elements of the personal consciousness, that is, of the conscious personality. The psychic disorder in obsession is, we may well say, more a trouble of the conscious personality than of consciousness. This is precisely the idea that Regis and Pitres have endeavored to bring forward in their work, and what Regis himself has summed up in his definition of obsession, by considering it as a conscious duplication of the personality.

The disorders of the conscious personality in the *psychoses* are the most frequent of all. They exhibit, either a *modification of the personality proper*, which may ascend to the abolition of the sentiment of its existence (*mania, depressive or anxious melancholia*); or the coexistence of a *proper personality* with a *delirant personality* (*mystic psychoses* with *duplication of the personality*), or finally the *replacement of the proper personality* by a *delirant personality* (*metabolic deliria of the personality, systematized deliria with transformation of the personality, etc.*).

In speaking of troubles of the *conscious personality* Regis insists in being well understood. He does not mean that patients of this kind have an exact and complete notion of their troubles, for very frequently insanity is an illness which ignores itself. He simply signifies that the various personalities, thusly modified or created by delirium, are the result of states of consciousness and not unconsciousness. It is exactly as in *obsession*, but with this difference, that the greater part of the time the patient cannot conceive the substitution of a passive or automatic personality by an active, conscious or voluntary personality.

The disorders connected with conscious and non-conscious personalities are troubles belonging, above all, to the *neuroses*, with secondary states. As a natural consequence, they may be recognized, but in a less degree, in *psychoses*, with delirant mental confusion (*delire onirique*), or in the secondary state; with other words, in *toxic psychoses*.

There are also cases of *coexisting personalities* to be distinguished, namely: those where the *conscious* and *subconscious* personalities appear

divided, but simultaneously; and those of *successive personalities*, where the conscious and subconscious personalities alternate or follow each other, more or less regularly (*double consciousness, double life*). Generally, in the last cases, which appear to belong specially to *hysteria*, the subconscious personality possesses both, its own notion and that of the conscious personality, while the conscious has its own notion only and does not know anything about the other.

Disorders by dissolution of the personality are those due to mental debasement, to insanity. Here still the pathological condition translates itself, in the first place, and in the domain of conscious personality, by a diminution of the active or voluntary consciousness at the expense of the passive or automatic one; but here we are no longer dealing, as in obsession, with a simple functional trouble, and consequently susceptible of being transitory and curable, but with an organic trouble, definitive and progressive. And this explains why it is the active consciousness which at first is lost among its new acquisitions, recent and ancient, while the passive consciousness, still at work, allows yet the patient to think and act automatically.

Side by side with dissolution we could evidently find also a *non-formation of the personality*. This arrest of development, which allows all sorts of degrees and forms, simple deviations, partial gaps, and total inexistence of the personality, is a peculiar attribute of the *psychoses of degenerates*.—*Precis de Psychiatrie*, Regis, 3rd Edition.

PHYSIO-PATHOLOGY OF IDEATION.—We cannot conceive, says Bianchi, of the intellect in a static condition beyond a relative small interval of time, as it is not possible that the molecular movement should halt for a single instant in the living organism. *Dynamism* is the condition of mental life as of organic life. The slowing down of the continual motion in consciousness is decline towards death, and is therefore a morbid fact. While constellations are being formed or organized, the component of one pass into another, and then into another, the number of combinations being greater the simpler they are. For instance, in the representation of *paper* we find some components, such as the white color, the tacto-muscular images of thinness, flexibility, and smoothness, which we meet again as components of very many other images. It is their particular combination that characterizes the specific quality of a concrete image.

In the fact that the simple images enter as components into a great number of concrete images, and that their combinations may be multiplied infinitely, we find the law of evolution supreme. Every day, every hour, gives a very great number of new products, which enter into combination with those preceding them, and increase the thought and, with the thoughts, the *personality*. As new instruments added to an orchestra always render the music more harmonious, with more complex harmony, and increases its powers of æsthetic action on the mind, giving greater delicacy to the emotional passages, and rendering the fused notes less easy of analysis, so the new percepts, combining with those already formed, always give greater consistency in the mind to that nature of which the mind is a reflection, and to the laws of its own existence.

The increase of *psychic* products is continuous and perennial, and results from the action of the agencies of Nature on the perceptive centres, and

the increment of the *psychic personality* is likewise continuous and perennial, the clearer being the differentiation of the *Ego* from surrounding nature, the more fully the latter is known; or what is really the same thing, the greater the number of the perceptions and the more active the process of assimilation and fusion of these, for the formation of more complex psychic products, which synthetize our notion of the psychical and social environments. In this process we may recognize the spiritualization of Nature and the formation of the consciousness from matter. Two orders of psychic products are formed with the percepts—the *aggregated* and the *composite*. The first may be decomposed into their elements, which are associated with one another in the most diverse manner, giving rise to the most varied representations in consciousness.

Although the second may be subjected to the process of analysis, as performed, for example, by the psychologist when he examines them, they are stable compositions, and represent determined external facts or definite relations, being associated in the most diverse manner with one another and with the aggregate, in the perennial motion of conscious and unconscious thought, in the same individual and in the different individuals of the community.

On several occasions Bianchi has recorded a fact that is of capital importance for the study of *thought*—the creative power of the human intellect. Nature gives us only the raw material, out of which the intellects construct modest phantoms of imagination or the marvelous and immortal creations of genius, in the same way as, with other raw materials, man constructs the hut of the savage, the cottage of the poor laborer, or the sumptuous palaces of the rich; the small hamlet or the magnificent metropolis, where men, like thoughts, live, associate together, oppose one another, separate, act or remain inactive, grow up, and die.

With the continual increase of sensations received and of percepts, thought is evolved in a process of uninterrupted formation and of perennial exchange, through which our notions and judgments assume diverse forms, and the several thoughts, variously nourished and colored, succeed one another in the most different combinations, with a tendency to manifest themselves, to reflect themselves, and to follow one another in the most widely different combinations of time, place, and manner. There we have the true characteristic of human thought. There is no static element in an awakened consciousness; everything is in motion there. Whatever image crosses its threshold drives out some other one, and may become the evocative centre of attraction of others, as the star that drags behind it a large number of minor stars; forming with the first a true constellation, rises, passes the zenith and sets, closely followed by others. We cannot conceive of the intellect in a static condition beyond a relatively small interval of time, as it is not possible that the molecular movement should halt for a single instant in the living organism.—*Trattato di Psichiatria*, Bianchi.

THE HAHNEMANNIAN MONTHLY.

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MEDICAL LICENSURE

BY

JOSEPH C. GUERNSEY, A. M., M. D., PHILADELPHIA, PA.

(Presidential Address Delivered before the National Confederation of State Medical Examining and Licensing Boards at its Twenty-First Annual Meeting, Chicago, February 28, 1911.)

Members of the National Confederation of State Medical Examining and Licensing Boards:

PERMIT me to express my deep appreciation of the honor you have conferred upon me, by choosing me to preside over your 21st annual meeting. This Confederation is so high of purpose and so successfully attains its aims, that it is a valued privilege to be its President.

It is with profound satisfaction that this Confederation regards the work it has accomplished during its existence, in elevating medical education and in supporting high standards of professional ability. Papers on subjects chosen by its Executive Council for the improvement of medicine, have been presented by physicians eminent in their profession, observant of the trend of medical progress, ready to recognize and to utilize every discovery in technique and each new truth in medical knowledge. Essays coming from such men, practical in thought and deed, of ample and mature experience, have been of inestimable value in moulding the opinions and acts of the medical profession.

The topic for this meeting is the desirability of placing med-

ical colleges under State control. The subject will be presented from a legal as well as a medical viewpoint, by able authors and debaters who will discuss a question sufficiently momentous to demand a thorough investigation.

Worthy of mention is the new "Committee on Lay Publicity," whose function is to educate the public in medical matters. This Committee is expected to accomplish great good, because any cause that wins the approval, the sympathy and the support of an educated public, is an element of strength that brooks no defeat.

MEDICAL LICENSURE.

In selecting a subject for the President's Annual Address, I have chosen "Medical Licensure," because the proper bestowing of this privilege is one of the most needed requirements of the day. In discussing my theme I shall endeavor to indicate to whom Medical Licensure, or practice-right, should be granted and from whom withheld.

Medical Licensure means, in brief, legal recognition and protection, by the State, in the practice of medicine, including the right to charge valuable consideration for curing or attempting to cure, those who are sick and for preserving the health of those who are well.

This "legal recognition and protection by the state in the practice of medicine" is generally testified to by a document or "license," formally couched in legal phraseology and awarded to the graduate of a reputable medical college, who has passed successfully the examination of a State medical examining board.

Unfortunately, however, whether owing to the indifference or to the connivance or to an evasion of the law, the practice of medicine is frequently assumed by those who, irrespective of medical training, choose to practice a method of cure which appeals to them as the best means for relieving physical suffering—or for adding sustenance to an anæmic pocket book.

In my opinion, an ideal and uniform Medical practice Act should contain a requirement that Medical Licensure or practice-right, shall not be conferred upon anyone nor permitted to anyone who denies the existence of disease; or who, by disbelief or deficient medical education, is unwilling or unqualified to combat disease and thus protect the public health, by such

physical, tangible and hygienic measures as asepsis, antiseptics, disinfection, dietetics, quarantine, etc. Such a requirement should be rigidly and uncompromisingly enforced throughout the United States. The science of medicine, especially of preventive medicine, is so advanced and is upon so firm and demonstrable a basis, that the public should derive all the benefit therefrom—notwithstanding protests of the ignorant to the contrary.

While no law should be enacted, or, if enacted, should be accepted by the public, which deprives or even aims to deprive any citizen of the selection of a physician or a system of cure, I repeat that no person should be granted practice-right; unless he can show himself a safe guardian, by modern medical sanitation, of the public health. To express the same idea, Dr. William H. Welch says:*

“We have no intention or desire to interfere, even if we could, with the freedom of the individual to employ any one or any method of healing he may please, so long as the interests of public health are not endangered thereby.”

That there are those who deny the existence of disease is evidenced by the story of the death of Mrs. Mary G. Baker Eddy, told in the *New York Times* (December 5, 1910); a member of the New York Christian Science Publicity Bureau said: “We recognize the existence of the manifestation called ‘pneumonia;’ * * * I, myself, have at the present time a manifestation of what is called ‘hoarseness.’ But these so-called ‘diseases’ are only manifestations and have no physical reality because the body itself, indeed all matter, exists only in the mind. * * * How can a mental conception have a physical disturbance?”

Such visionary theories are dangerous to the lives, comfort and physical welfare of the Commonwealth. To deny the existence of disease, caused by pathogenetic germs which have the power of reproducing themselves and the diseases they typify, is to throw down the bars of precaution and protection and to invite plague and pestilence to run riot throughout the world. To illustrate: He who denies the existence of disease and its pathogenetic germ, will allow his wife to lie in her room with the “manifestation” called small pox; his son to occupy his room with the “manifestation” called diphtheria and his

*President's Address at the Sixty-first Annual Session of the American Medical Association, June 7, 1910.

grandchild her nursery with the "manifestation" called scarlet fever. Denying their existence, he does nothing to check these "manifestations." He eats and sleeps in that house, frequently visits these different rooms, then, with no pretense of disinfection, freely mingles with his fellow beings, men, women and children, on the streets and in the trolley cars; at the theatre and at church; taking books from the Public Library and carelessly permitting them to lie upon the sick beds where they are handled by the infected hands of the afflicted patients. All these things he does, indifferent to the pathogenetic germs which cause these "manifestations," though they, these same germs, possess an existence so real and so material that they may be picked up and carried about, just as surely as the furniture in his parlor—and when so picked up and carried about, they cause the same "manifestations" of small pox, of diphtheria and of scarlet fever in other families; "manifestations" which are attended by pecuniary expense, by physical suffering and, often, by death. We know disease is spread rapidly and widely in exactly this way. Each of us has seen contagion and infection by such defiance of the laws of cause and effect. I object to the granting of practice-right to any being who so recklessly imperils the physical welfare and lives of my wife and children.

If traveling through the wild forest, this doubter of disease find himself pursued by a gaunt, gray wolf, with gaping and hungry jaw, does he say: "That apparent wolf has no physical reality * * * because the body itself * * * exists only in the mind?" On the contrary, he recognizes his pursuer as a savage monster, most dangerous to his "life, liberty and pursuit of happiness." Not less truly his microscope reveals equally savage and dangerous monsters in the shape of pathogenetic germs—each differing from the other as the staphylococcus from the tubercle bacillus; the Klebs Löffler bacillus from the spirochete of syphilis, etc. As the endangered traveler, in self defense, slays with a bullet the marauding wolf, so the true physician, in self defense, slays with a germicide, the dangerous microbe. Thanks to antiseptics, gone is the "laudable" pus we were once taught to regard with admiration; its germs, as is now known, not only burrow into and eat away the deeper structures of the human frame but further, the surgeon beholds it with terror as the source of septicæmia—and of death. Thanks to asepsis,

gone too are the inflamed conjunctiva and the turgid lachrymal duct of the oculist—due to the unclean hand or instrument. Very largely owing to asepsis and antiseptis, the mortality of all surgical operations, including those upon the brain, the heart, the stomach, the lungs and even laparotomy, is so greatly reduced as to be nearly negligible.

The promulgation of the germ theory of disease, at first regarded with caution and question, has become accepted as a law of the universe; by it the pathology of disease and its prevention by sanitation, in medicine and surgery, have been revealed and revolutionized. We know that the tubercle bacillus, either human or bovine, is as strictly essential to the development of the disease tuberculosis as a seed is for the development of a plant; that the Klebs Löffler bacillus is necessary to produce diphtheria and that the lung must be sown with the specific diplococcus of pneumonia before that disease can appear. The experimental production of tuberculosis, for example, is conclusive in its proof of the essential etiology of the disease and the importance of a knowledge of the biology of the causative germ. So with every disease: the germ, or seed, must first be planted upon fertile soil in the human economy, and then comes the harvest!

If one deny the production of disease by germs, why does he not deny the propagation of the human race by spermatozoa? Both are intangible, visible only through the microscope; but each is an active agent and, when placed upon receptive soil, one produces a human being, while the other produces a sickness which imperils and often destroys life.

Who are they who deny the existence of disease, scout the germ theory and ignore preventive medicine? Are they skilled microscopists? Are they learned biologists? Are they physiological chemists? Are they experts in the modern science of bacteriology? Are they experienced medical practitioners—or, are they unthinking fanatics, untrained theorists and prejudiced partisans, ignorant of physiology, of pathology and hygiene, with absolutely no knowledge of the laws of life to guard nor guide them? We know they are of the latter class and, hence, should be refused practice-right, because totally ignorant how to conserve and preserve human life.

If a law suit be brought against me, do I apply to an ignorant who, never having studied law, knows nothing of its

principles and requirements, or do I appeal to a lawyer who has made law his life-study and is thoroughly acquainted with its intricacies, its power, its wisdom and especially its application to my own particular case? This comparison is exactly similar to one seriously sick. The patient needs not an ignoramus but a skilled physician who, trained to trace cause and effect, converting *medica arcana* into *medica revelata*, diagnoses the ailment and prescribes the treatment required to restore the sick one to health—and to prevent the spread of the disease if it be contagious.

The great question of to-day is the protection of health rather than the curing of sickness. For this end, measures hygienic and dietetic against tuberculosis; medical and prophylactic against epidemics and endemics, such as vaccination to small pox, antitoxin to diphtheria, quarantine against cholera, destruction of the flea-infested rat in the bubonic plague, etc., are mostly sought after. Surgical complications and medical involvements are due, in the majority of instances, to pathogenetic germs which *must* be destroyed if we would enjoy health, happiness and longevity. Hence all those who deny the necessity and efficacy of quarantine and antitoxine, vaccination and sanitation, are unworthy, because unsafe, to receive practice-right; and this for the healthful protection of the Commonwealth.

And yet there are candidates, not only claiming and even demanding but actually usurping practice-right, who are ignorant of or indifferent to this fundamental law of pathology and, hence, of preventive medicine. To none such persons should be entrusted the lives of our families or fellow citizens. I do not refer to any school, sect nor cult but to the whole class of would-be healers, who foist themselves upon the public with but scanty knowledge of curing the sick and practically none of preventive medicine; utterly unfitted in any way and in every way for their assumed vocation. Their name is legion for, unfortunately, under various guises and disguises, they are many.

If a sick woman, in hope of being cured, persuade a "healer" to sit beside her bed—or five hundred miles away—and bend his thoughts upon the "manifestation" which is causing her physical discomfort, she may solicit such attendance and the "healer" may bestow it. But if the "healer's" ability or willingness go no further; if he be unable to diagnose the sickness

he is treating and to declare its nature, whether contagious or non-contagious; and, if it prove the latter, he is unable or unwilling to afford the woman's family *sanitary* protection, he should not be granted nor entitled to the *legal* protection of Medical Licensure.

If a man be ill, he may summon an active handed personage to his relief who, in his efforts to effect a cure, will straighten a curve in the cervical portion of the spinal column; will replace a vertebra of the lumbar portion which has been warped from its normal position; will restore to its anchorage a floating tendon which has drifted from its moorings; will untwist a nerve which has twined about itself; will reshape and rehabilitate many muscles which have shrunk and shrivelled; will animate and invigorate the dormant periosteum of a languishing bone and—will accomplish more marvels. But if he cannot or will not disinfect infection nor counteract contagion, he should not be granted practice-right, to the prejudice of the people. Likewise also with *all* would-be healers, who ignore sanitary science because ignorant of its principles, its application, and its necessity.

Conditional upon the granting of Medical Licensure, candidates therefore might confess faith in some such creed as this:

I believe in disease, existing as an entity, often infectious and contagious;

I believe in pathogenetic germs which cause disease, suffering and death;

I believe it necessary to annihilate these germs by asepsis, antisepsis, disinfection, quarantine and other hygienic measures, to the end that remaining free from their depredations, we may enjoy unimpaired health;

I believe it my duty to promise and I do hereby promise, that, in addition to whatever method of cure I use for the relief of my patients, I will safeguard them, by hygienic, sanitary and prophylactic measures, from infection and contagion hostile to life and health.

To my mind, all who desire to practise the healing art should be compelled to pursue a *uniform* course of study in at least physiology, the science of life; in pathology, the science of disease; in hygiene, the science of health. I would make this

rule applicable, allowing no deviation therefrom, to all who strive to enter the ranks of healers, no matter what theory or method of cure they adopt. In addition to making State board examinations on these subjects as nearly identical as possible, I would have them uniformly rigid and searching—the examination in pathology being practical rather than written. An experience of sixteen consecutive years, as a State board medical examiner, has taught me there is, sometimes, as much difference in the value of some State board examinations, as there is a difference in the value of the examinations in some medical colleges for the diploma—and I am sure my experience does not differ from that of other medical examiners of equal term of service. We have all passed upon papers so utterly deficient in medical knowledge as to cause us to wonder how any medical college could have dared to graduate their authors.

The question of therapeutics must be left to the judgment of educated and intelligent physicians who have studied the *materia medica* so faithfully, as to acquire comprehensive knowledge of drug action. There is no branch in the medical curriculum requiring a more intimate knowledge for the *SAFE* and successful practice of medicine than the *materia medica*. While there are, and for a time may be, different views on therapeutics, these very differences will act as checks upon extreme or false deductions. The broad-minded physician, thoroughly grounded in all that pertains to his profession and an accurate observer of cause and effect, will likely learn by experiment and experience the most successful method of applying remedies as a means of cure.

To deny disease is impossible since, speaking most literally, it can be seen and recognized at a glance. Is not this most wonderful—that, by a tiny dot, not so large as a pin head, upon a little bit of glass, the trained physician of to-day can, with his microscope, read and proclaim to the world the name, the character and the symptoms of diseases, saying, "This slide declares typhoid fever, this one indicates diphtheria, this one shows tuberculosis, this one announces the deadly cancer, this one reveals nephritis, this slide denotes malaria and, although I have not visited nor even heard of this patient, I plainly see it is of the quartan, or tertian, or quotidian type, as the case may be. There is no language on earth so universal as this;

whether the English, the French, the German, the Italian, the Russian, the Japanese, the Chinese, or whatever other tongue can be mentioned, all unite, to read alike, the forcible message, so clearly written upon a little piece of glass. Since this is the case, since physicians who do this to-day throughout the world are numbered not by scores nor by hundreds, but by *thousands and tens of thousands*, will the laity, can the laity, ought the laity to be satisfied with anything less than that their health and their lives shall be in the hands of those only who are qualified by education to *recognize* a disease and to declare its character; to *treat* it skillfully and successfully; to *prevent* it from spreading among the community? The people have a *right* to know these facts; they *ought* to know these facts; they *must* know these facts. These facts being known, how can any medical deceivers be tolerated when there is an intelligent and capable corps of trained experts willing to work *pro bono publico*. In the face of all this, should an ignoramus be heeded when he denies disease? Should he receive legal protection if, when presuming to heal the sick, death result? Surely the question of medical licensure must and should hinge entirely upon medical education. The public should be well informed as to what goods the learned and trained medical profession can deliver—and the public, so enlightened, should demand from every Legislature in the United States that these goods be delivered as safe guides in health and safeguards against disease.

“Am I my brother’s keeper?” Yes. I am my brother’s keeper in this instance and to this extent, that I instruct him in the nature of disease and how to escape from sickness and suffering. It is an encouraging sign of general education in these matters, that daily papers and weekly and monthly magazines frequently discuss popular diseases and explain them to their readers. Our Committee on Lay Publicity, however, can do better than this. It can inaugurate a movement to instruct the people that disease is an invading army, rigorously despotic, mercilessly imposing a heavy toll of suffering and death; and that this suffering and death can be largely ameliorated and finally conquered, only by an opposing army of skilled physicians who, as guardians of health, know what objects produce and prolong disease and can remove them—such physicians as are worthy the boon of medical licensure.

It is difficult to legislate against and still more difficult to enforce laws suppressing unlearned, unskilled and illegal med-

ical practitioners. The daily papers, religious and secular, teem with most extravagant advertisements promising prompt cures for all the ills of mankind—to accomplish which are used all known devices, from dangerous drugs to mere mental consent. We know that among a large number of our supposedly enlightened and rational fellow beings, superstition and credulity have as powerful an influence to-day, with almost as total ignorance of true medicine, as existed in the heathenish days when the populace was absolutely swayed by the supposed voices of the gods, speaking through the Grecian oracles.

A change for the better can be wrought only by EDUCATION!

First.—Raise the standard of medical education. Medical teaching must be more practical, as was shown at the meeting of this Confederation in 1909, and must be harmonized by the uniformity of medical studies, imparted by able teachers, with a sufficient number of hours spent upon each branch. By pursuing this course, higher medical education will soon be so much more general that we will have at least one hundred extra well educated physicians where to-day we find only fifteen or twenty. It is true that many medical students yearly receive the degree of doctor of medicine who by a long way lack the medical knowledge they should possess. Numbers of these are caught by State medical examining boards and fail to obtain medical licensure. Others of them escape and become unworthy representatives of the medical profession—unworthy because of their ignorance, if from no other cause.

State medical examining boards, *the present day portals to the practice of medicine*, can contribute most largely to this result by requiring more rigid and more searching examinations of candidates. Medical colleges furnish medical education; medical examining boards decide whether applicants for licensure have absorbed this education and whether they can deliver it upon demand of the examiner or of suffering humanity. Medical examining boards can, *and do*, wield a tremendous influence upon medical teaching. If they say to the medical colleges, we require and must have such and such qualifications, to gain practice-right in our States, the colleges will furnish the instruction and will drill the teaching into their students. *I know this is true.* In my experience I have seen more than one medical college raise its standard of studies and of requirements, for a diploma.

If the question be asked, "Where shall we find advocates

and supporters for this higher medical education and stringent examinations," the reply is, "The strongest advocates and supporters will come from the medical profession itself." We remember when there were no more bitter antagonists to State medical boards than the graduating classes of medical colleges. They vehemently opposed the creation and function of State medical examining boards as being not only unnecessary but unconstitutional. "My medical diploma gives me practice right," was their cry, and in some instances sums of money were raised with which to engage eminent counsel to question in court the legality of such boards and, if possible, to cause their abolition. To-day, the *strongest supporters* of these same medical examining and licensing boards are physicians who, having themselves passed through the ordeal, insist that all would-be practitioners of medicine undergo the same test for fitness for licensure. Nothing succeeds like success, and the success of State medical examining boards proves their need. As higher medical education is provided for and enforced, and as the State board examinations are made more searching and more determining, so surely will this Confederation reach an ultimatum of its function. As in the past medical graduates have been the worst opponents of the medical examining boards, so in the future they will become the most ardent supporters and defenders of higher and more stringent medical examinations. "*We* have proven *our* fitness for medical licensure," they will say, "and so must you." Every class of medical graduates which pours out from the halls of medical learning, to come before the State medical examining boards, will demand that their successors shall be tried by the same test. Thus gradually the whole medical profession will perforce accept the higher medical grades.

Another advantage, besides the protection of the public health, would be the elimination, from an overcrowded profession, of many undesirable elements—when only the survival of the fittest would remain.

Second.—*Educate the people.* They must be taught to discountenance and reject unskilled, therefore unsafe, medical guidance; to refuse to jeopardize their money, their health and their lives with plausible pretenders. Thus will the whole horde of this predatory host, bereft of support and nourishment, perish from anæmia. The human race should be as urgently warned against and as perfectly protected against all

such dangerous imposters, as against the thief who robs in secret or the deadly snake which lurks in the brush.

The sooner the world attains this higher education and is brought to realize the medical status of to-day, the sooner the world will be better off physically, mentally, morally.

SIGNIFICANCE AND IMPORTANCE OF TESTING FOR OCCULT BLOOD IN THE FECES.

BY

H. M. EBERHARD, M. D., PHILADELPHIA, PA.

(Read before the Delaware County Homeopathic Medical Society, Chester, Pa., January 12, 1911.)

IN selecting a subject for your consideration, I have tried to choose one which would be of use to the medical man, as well as to the surgeon.

Considering that each one of you is daily consulted for some malady of the digestive system, it would not be amiss to consider a subject which I have found to be sadly neglected.

In reviewing my records of over 3,000 gastric and fecal analyses, I was astounded to note that in only two per cent. of the cases was there any attempt made to even look at the feces. I have records of cases that have been under the care for years of men eminent in the profession, that showed the existence of occult blood in the stool with its sequella and symptoms, proving the blood to have been in existence for perhaps a year.

Three cases I should like to cite in particular. Mr. "K," a man of forty-two years, an engraver by occupation, gave a history of digestive disturbances for five years, with gradual loss of weight and strength. When first I saw him, his hemoglobin was 20 and his red cells 1,500,000. He had been treated for indigestion and anemia, taking iron and nitrate of silver for a period of two years without benefit. His skin had a deep leaden look, which afterward was clearly diagnosed as a typical case of argyria, due to the enormous amount of nitrate of silver taken. Examination of the fasting stomach proved that organ empty. (I should like to say to you in passing that one of the most important points in gastric analysis is the passage of the

stomach tube into the empty stomach in the morning; much can be learned of the condition of the stomach by this means alone.) This patient was given an Ewald test breakfast, which showed a marked hyper-acidity. A selected diet revealed a marked reaction for occult blood. Diagnosis—Ulcer of stomach.

Rest in bed with an ice bag to the epigastrium for the control of hemorrhage, with a regular ulcer diet, made an astounding difference in four weeks. Hemoglobin 55, red cells 3,000,000; gain in weight 18 pounds; occult blood negative.

CASE 2.—Mr. "B," a man forty years, banker, suffered with intense pain at the lower end of sternum which radiated toward the heart. The slightest exertion would produce an attack which simulated angina pectoris. This gentleman would have periods of relief lasting a month or more, when suddenly about two hours after eating there would be a violent seizure of the above mentioned pain, which would require a hypodermic injection of morphia for relief. During the seizure, the heart action would remain normal, excepting for an increase in the number of beats. The fasting stomach revealed nothing. An Ewald test breakfast showed a mild hyper-acidity, with good starch digestion. Fecal examination on selected diet for several days showed an enormous amount of occult blood. This man was advised by me to go to bed and take the regular ulcer cure, but refused. He consulted another physician, who looked at his tongue, felt his pulse, and then concurred with the diagnosis of his regular physician that he was a sufferer from angina pectoris. One week later the patient dropped dead with a violent hematemesis. An autopsy revealed an ulcer near the cardiac orifice, with the heart and all other organs normal.

CASE 3.—Miss "H," age 33; all her life suffered with "dyspepsia." Vomiting was a prominent symptom, so much so that at my first interview she could not even retain water. In the early morning, about five o'clock, she would awaken with frightful nausea and agonizing pain in the epigastrium which would be relieved only in part by vomiting a very acid fluid. An examination of her fasting stomach showed it to contain about 100 c. c. of pure gastric juice, whose free H Cl registered 80 and the total acidity 120. An Ewald test breakfast was returned in one hour with the following result: Free H Cl 86; total 130. Fecal examination revealed a very positive reaction for occult blood. This patient was put to bed, the stomach washed twice daily with bicarbonate of soda solution, and fed

per rectum for several days. At the end of one week we were able to begin the regular ulcer cure which she retained, and stopped vomiting completely. Just here is where I want to emphasize my point in citing this case. I made daily observation for occult blood and found it steadily persistent. I used all means known to control hemorrhage, but at the end of five weeks the occult blood was still present. Here was a clear case for the surgeon. A laparotomy showed a large ulcer about the size of a quarter of a dollar on the larger curvature near the pylorus. A gastro-jejunoscopy was performed with a very fine result. In three days all bleeding had ceased and now one year from the time of operation the patient is enjoying good health and has gained splendidly in weight. Repeated examinations have been made of the movements, always with negative result. This case I believe shows beyond any reasonable doubt the importance of my plea for more widespread examinations of the feces. While this patient was apparently gaining weight and strength before her operation, the real source of her trouble was only partially controlled to again flame into trouble when the patient began eating more solid food and was up and about.

I cite these three cases merely as examples of many others, and feel they should act as a stimulus for a more diligent search for occult blood in the stools.

Taking the first case, as example, I believe that this man would not have suffered as he did, nor would he have developed the argyria had a test been made for occult blood in the beginning.

In the second case, I am firmly convinced that this man would not have died had his physician considered the weight that is carried by gastro-enterologists on the one diagnostic symptom alone—occult blood.

DEFINITION.

What do we mean by occult blood? Simply blood that is so mixed in the feces as to be concealed from the naked eye. In order to make certain that occult blood exists in the stool, it is important to eliminate certain articles of diet for at least twenty-four to forty-eight hours previous to making the test. Hence, such articles as meat and fish should be eliminated as they very often give a reaction which can be mistaken for occult blood.

Just a word in passing about the value of macroscopic observation of the feces. I believe a great many errors of diagnosis would be eliminated if physicians would at least look at the feces. We all know that the typical stool of occult blood is what is known as tarry stool; but let me strongly advise you not to depend upon the looks of a movement. You all know that the color and consistency of any movement depends upon the nature of the food ingested; for instance, huckleberries, black berries, red wines, bismuth, iron and manganese, all produce a black stool; also that if the movement is left exposed to the air, its surface will turn dark, due to oxidation.

Again we must remember that even a stool that looks absolutely normal in color may give the reaction for occult blood.

I have examined many stools where the color was bright yellow, and even normal in color, and yet occult blood was found.

TESTS FOR OCCULT BLOOD.

The tests for occult blood in the stools are numerous. Prominent among these are the Benzedine Test, Weber's Modification of Von Deen's Guaiac Test, the Aloin Test.

In order not to confuse you nor give you too much, keeping in mind my idea of making this subject simple, so as to increase your interest, I am going to illustrate and mention but one test, which is that used exclusively by Elsner and his Boas Polyclinic of Berlin, Germany. I refer to Weber's Modification of Von Deen's Guaiac Test. • Where occult blood is found by test such as the guaiac it is wise to corroborate with another—the Aloin Test.

Take a small piece of feces, perhaps an inch long, and dissolve in ordinary water; mix thoroughly by means of a pestle. When thoroughly mixed, add about one-half ounce of glacial acetic acid, and mix again. Of this mixture, fill an ordinary one-ounce test tube about one-half full, and fill to the top with ether; mix thoroughly by rotating the hand, being careful not to shake too violently as this both interferes with getting the ethereal extract and may produce a slight explosion. Pour off the ethereal extract and add about ten drops of freshly prepared tincture of guaiac; shake well and add thirty drops of ozonized oil of turpentine. If occult blood is present, it will be noted by a blue reaction.

DISEASES IN WHICH OCCULT BLOOD IS USUALLY FOUND IN THE
FECES.

Ulcer of stomach and intestines.

Cancer of stomach and intestines.

Pancreatic diseases, especially of the hemorrhagic type.

Catarrhal jaundice.

Gingivitis.

Post nasal conditions, such as adenoids.

Ulcer of the oesophagus.

ULCER OF STOMACH.

Here we find that occult blood is intermittent. At one time, we may find a large amount; another time the slightest trace. This seems to be diagnostic of ulcer of the stomach. Age, usually before 40 years. With the occult blood, of course, we will bear in mind the nature of the pain which usually comes directly or two hours after eating; a gastric analysis usually shows hyperchlorhydria, a tender spot somewhere over the stomach or near the pylorus, and a symptom which is very often forgotten, a tender pressure point in the region of the twelfth dorsal vertebrae to the left.

CANCER OF THE STOMACH.

Occult blood, unlike that of ulcer, is usually quite persistent. It is unusual to find a case where true carcinoma exists that blood is not constant. We have here also such guiding conditions as the age after 40; the gastric analysis where hydrochloric acid is either negative or markedly deficient, presence of a tumor, if advanced, cachexia when no tumor yet exists may sometimes be traced to its course by detecting occult blood, etc.

PANCREATIC DISEASES.

Chronic pancreatitis, pancreatic calculi, hemorrhagic pancreatitis, and cancer of the pancreas, all show occult blood. Here we can be guided a great deal by the macroscopic appearance of the feces. We usually find a large amount of fecal matter with each movement with marked steatorrhea (excessive

fat in the stool). At times this is so marked as to give the feces a real fatty look. Meat fibres can be seen undigested. If fresh raw beef is given the cell nuclei may be detected *microscopically*. The gastric analysis often will help to clear up the diagnosis.

CATARRHAL JAUNDICE.

This disease, too, shows occult blood. As guiding symptoms, we have acholic stools, bile in the urine, perhaps an enlarged and tender gall bladder, fever. The jaundice also usually would not last more than six weeks. Always doubt your diagnosis should it last longer.

GINGIVITIS.

Fuss, of Brooklyn, was the first man, I believe, to call attention to the possibility of mistaken diagnosis of occult blood in the feces where the stomach, liver and pancreas, etc., all prove to be normal. He showed that cases of his who had some disease of the gums, or where the gums were too violently brushed, or where the patient swallowed blood in using dental floss, gave a reaction. I have carefully investigated his views on this subject, and found them to be correct.

POST NASAL CONDITIONS.

As to the possibility of occult blood occurring from post nasal conditions, as adenoids, I know you are all familiar.

In conclusion, let me say I believe that the time has come when every physician will feel it his duty to ask for a specimen of the feces as positively as he would a specimen of the urine. I believe no physician has a moral right to go on treating what the great majority of physicians call indigestion (which term really has no meaning). It really takes no longer to test for occult blood than it does to test for albumen, sugar, etc., in the urine, and at times the end result is infinitely more valuable than if he does discover albumen. If he discovers occult blood it will show his patient that he is scientific, and that he is painstaking and careful. Above all it will guide him in his treatment to know that he is dealing with an organic rather than a functional disease.

SUMMARY.

- I. Never depend alone on macroscopic appearance of stool.
- II. Remember that cases of so-called indigestion which con-

tinue for an extended period or for but a short time, may show occult blood.

III. That occult blood in ulcer is usually intermittent.

IV. Cancer of the stomach and pylorus usually shows the existence of occult blood almost constantly. This, of course, excludes the cases of extra gastric cancer.

V. It takes no longer to test for occult blood in the feces than to test for albumen and sugar in the urine.

VI. We should ask our patients to take a test diet, so to speak—for twenty-four to forty-eight hours prior to the test—by excluding fish, meat, iron, etc.

VII. That cases which simulate angina pectoris or are diagnosed as a neurosis with pain in the epigastrium should always have a test for occult blood.

VIII. If occult blood is found in catarrhal jaundice which persists over six weeks, we had better question our diagnosis.

IX. That brushing the teeth too violently or using dental floss which hurts the gums, may give rise to occult blood.

X. If occult blood is found by one test it is best to corroborate the result by a second examination.

CONSERVATIVE TREATMENT OF SALPINGITIS.

BY

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IF the end result of the surgical treatment of sub-acute and chronic salpingitis left nothing to be desired, then the conservative medical treatment would not be warranted, but the latter form of procedure has a decided field of usefulness.

1. It eliminates practically all the danger to life, which surgically is a factor, even under the most improved surgical technique and highest surgical skill.

2. It leaves the patient with all her pelvic organs in place, without contributing to any premature or induced menopause.

3. Without the multitude of nervous symptoms and chronic invalidism, that are very prone to follow surgical treatment. And finally

4. As the majority of these cases are under 35 years of age, conserves for them all the changes of future pregnancy and consequently, still further improvement.

In the large majority of cases of tubal inflammation, the

uterus is the source of infection, and the infection is practically always of microbic origin. Sepsis is common to all forms of tubal inflammation and the streptococcus and gonococcus are the two forms of bacteria, usually at fault.

Streptococcic infection is usually the result of unclean examining hands or instruments, or from infection from laceration of the cervix, or as a result of infection following delivery, either delivery at term or abortions or miscarriages requiring operation interference.

However, gonococcus infection is the main cause of the majority of the cases of tubal inflammation and is always to be considered and looked for as a causative factor.

Owing to the poor resisting power of the gonococci and their habit of dying young, while in their own secretions, the virulence of the disease diminishes rapidly until usually at the end of the sixth or eighth week of the disease, the pus is sterile and with good technique in operative work, even with the accidental rupturing of the tube and soiling the abdominal contents, seldom causes loss of life. And for the same reason we can feel more justified in treating cases, conservatively, for the little manipulation required, may be enough to break up adhesions, and run the risk of rupturing tube and collections of pus held in place and safety by adhesions.

Salpingitis is classified into catarrhal and interstitial. In the catarrhal form, the mucus membrane is affected, inflamed and thickened, increased secretions of mucus and some swelling and enlargement of tube. It usually runs a mild course and terminates in resolution or at times, extends to the deep structures and causes interstitial variety.

In this variety, all the structures that go to make up the tube are involved, congested and swollen, tube is tortuous and increased in diameter, the ovary, owing to its location, becomes involved, the tube becomes filled with pus and exudate, and the entire region is merged into one mass by protective adhesions, the patient's condition at this time is one of constant pain, and all the acute manifestations of a violent inflammatory trouble.

Before I speak of treatment, I want to say, that to those practitioners of medicine who definitely decide and think, that certain results are impossible, then to those, the treatment of the above class of cases must be surgical.

I do not contend that the conservative medical treatment is

to be considered, to the exclusion of surgical means, but the great majority of patients, nature takes care of so perfectly, that assisting nature by intelligent means is usually sufficient to bring about a state of symptomatic cure, and apparently well patients.

In the treatment of the acute stage, the desired effect is to relieve the acute pain, especially the pain that comes from peritoneal involvement (usually localized), and assist in every way possible to limit the inflammation, and quickly help bring about a sterile condition of the exudate already present and forming. Along this line we have, internal medication, local application to abdominal walls, keeping the intestinal tract clean by saline purgation, and absolute rest. Under this plan of treatment many cases go on to complete resolution, and the patient has no more evidence of trouble. The sub-acute cases develop, and emerge into the chronic and require other treatment.

In the acute cases, we have an advantage in our remedies, for the correctly selected remedy will surely help. Belladonna, Colocynth, Mercurius, Psorinum, Thuja, Lachesis, Verarruns vivide are among those frequently indicated. I want to especially refer to Psorinum 30x and Thuja—low—believing that they both have specific influence on progress of the disease.

As a local application in acute cases of either kind of infection, nothing compares to ungt. Crede, a Celloid Silver preparation, faithfully rubbed into the skin over the site of the pelvic pain, and used from the very onset of the disease and kept up three times daily, for at least two weeks. If there is much fever present, it frequently drops from 2 to 3 degrees in the next 24 hours following the first application of the ointment. I thoroughly believe that it has a specific influence on the life of the infection, and besides limiting the amount of exudation, increases the resistance of the tissues and contributes largely to a sterile condition of the exudate.

Using enemas to empty the lower bowel, and saline purgation every other day to deplete the tissues. Absolute rest is important and the more perfect we can make it, the better.

By the end of the third week unless the acute condition shows good evidence of resolution, begin with large vaginal douches of very hot water, at least a gallon each time daily.

At about the eighth week from the time of onset the patient is usually in condition to come to the office for further treatment. On examination we find a mass of varying size, from

a decidedly easily felt tube, to an enlargement size of one's fist, that is very sensitive to pressure and usually involves tube, ovary, ligaments, nerves, and peritoneum or the affected side.

It is my custom to apply freely Churchill's tincture of iodine to the vaginal mucus membrane covering the mass, there begin the use of what is to my mind the most valuable aid we have, that is negative galvanic electricity. A large copper ball, wrapped with cotton, gauze covered, wet with saline solution, is placed in vagina, through a speculum directly against and usually under the mass—then connected with the negative side of the source of supply of current. A large dispersive abdominal electrode, well wet with saline solution, is placed in position and connected with the positive side of the apparatus. And about 15 to 20 milliamperes of current gradually turned on, for the first three treatments, during the first week, I rarely give over 20 M. A. of current, until the second week, but then begin to increase until the patient can comfortably stand 50 to 60 A. M. of current, and keep at that dosage on successive treatment.

About one treatment out of every three I wet the vaginal electrode covering with saturated solution of Potassi Iodine for the Cataphoric effect of the iodine. Again if there seems to be an involvement of the uterine canal I give intra-uterine copper electrolysis using a copper electrode that fills up the uterine canal, and connected with the positive pole. The generation of oxychloride of copper acts as a very thorough antiseptic and speedily brings about a change in the inter-uterine condition, and aids tubal inflammation.

After the first treatment the patient experiences great relief from pain, which relief is constant and progressive until pain disappears. The mass in the pelvis becomes more free, more movable, and less sensitive and in cases of ordinary severity, and small mass practically disappears, but should the mass remain the patient is free of pain, and decidedly comfortable and able to undergo the usual household duties, and enjoy life without annoyance from old trouble.

As very many cases of sterility are due to the results left from an attack of the catarrhal form, leaving the mucus membrane of tube swollen and tube more or less occluded by discharge; this treatment is particularly efficacious as it brings about absorption of this condition of inflammatory exudate, thereby favoring pregnancy and making a new woman out of what was frequently a wreck.

During the past three years among the cases which I have had, three which I had the opportunity to treat from the beginning of the infection, through all the stages, have since gone through pregnancy, through normal labors, and no unusual evidence of pain or disease apparent.

Finally, I have never noticed a relapse after the galvanic treatment that all cases are prone to have during and after any other treatment.

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BUREAU OF GYNECOLOGY

GONOCOCCUS INFECTION IN THE FEMALE.

BY

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GONORRHOEA is a purulent inflammation produced by infection with the specific micro-organism, known as the gonococcus of Neisser. The disease is of remote antiquity, the earliest known history of which is recorded in the fifteenth chapter of Leviticus, in which the Israelites are instructed as to how to avoid contagion. The disease was common among the Greeks and Romans, but it remained for Neisser to discover the gonococcus in 1879, only thirty years ago. The disease, like the poor, is always with us. Its prevalence varies widely in different classes of people. It is estimated that from ten to fifteen per cent. of cases in private practice are afflicted with it, while among prostitutes it ranges from sixty to seventy per cent.

The gonococcus is a diplococcus, and appears under the one-twelfth oil immersion lens in the shape of a coffee bean. In all cases of purulent discharge from the cervix or vagina a smear should be made and placed under the microscope to determine the presence or absence of these bacteria. The examination is simple and can readily be carried out by any physician who has a good high power oil immersion microscope. The germs stain with the aniline dyes, preferably carbol fuchsin and methylene

blue. By this means we are enabled to clear up many diagnoses which otherwise would have remained doubtful.

The gonococcus shows a special affinity for the mucous membranes of man, while animals show very little susceptibility to its action. These bacteria soon die when inoculated into animals, and do not produce general infection, while in man they are often productive of serious metastatic infections. No age is exempt from the susceptibility and virulence of these micro-organisms.

Most cases of purulent vulvo vaginitis in children are believed to be of gonorrhoeal origin. It is a well known fact that in hospital wards, where a child is admitted with a gonorrhoeal vaginitis, the infection, unless the strictest precautions are observed, rapidly spreads to other children in the ward. This fact has impelled many physicians to exclude from hospital wards all children suffering from a purulent vaginal discharge, until microscopical examinations of the discharge have established a negative diagnosis.

In acute cases of gonorrhoea the history and mode of onset, the character of the symptoms and local manifestations, together with a positive microscopic finding makes the diagnosis an easy matter; while in chronic cases the diagnosis is not so easily made. By far the most frequent and important infections in the pelvis are the gonococcic and streptococcic. Other bacteria found are staphylococci, pneumonococci, colon bacilli, tubercle bacilli, anaerobic bacteria, etc. While the gonococcus is far more frequent, the streptococcus is the most virulent and fatal in its consequences.

In chronic cases the gonococci may disappear from the discharges, and other means of diagnosis must be relied upon. As a rule the gonococcus is the only germ that will invade the normal uterus and tubes, although there are exceptions. The history of the case will in most instances assist in the diagnosis. The history of an acute urethritis or vaginitis accompanied by a muco-purulent discharge subsequent to coitus, or early marital life, followed by extension into the uterus and tubes in which there has not been an infection following instrumentation or the puerperium is almost certain to be gonorrhoeal.

There are two important facts to be considered in distinguishing the chronic cases of gonococcus infection: first, the pelvic inflammation is preceded by evidences of a gonorrhoea, or comes on without apparent cause, and, second, the lesion is

in the tube and may involve the ovary and adjacent pelvic peritoneum. The connective tissue, or parametrium shows little involvement. In the great majority of cases of gonorrhoea a history of urethritis is obtainable. A vulvo-vaginal abscess is usually gonorrhoeal in origin. Symptoms of frequent and painful urination, followed by vulvo-vaginal abscess, a muco-purulent discharge and pelvic inflammation following a few days, weeks, or months subsequently points strongly to gonorrhoeal infection.

The gonococcus, even if it enters the connective tissues of the parametrium, rarely produces any inflammation or enlargement. The characteristic path of this germ is along the mucous membrane of the uterine cavity and tube, producing an endometritis, salphingitis, ovaritis and adjacent peritonitis, with inflammatory exudates and abscesses. The vast majority of pus tubes are of gonorrhoeal origin.

In all cases of pelvic inflammation, the puerperium, miscarriage and intra-uterine instrumentation must be inquired into. Traumatism resulting from these causes produces injury to the lower portion of the uterus, and an infection thus resulting passes directly through the lymphatic and circulatory channels directly into the adjacent tissue, which is the parametrium. In a bi-manual examination it is a simple matter to distinguish between a parametritis and a salphingitis by the difference in location of these two lesions.

In acute inflammations within the pelvis much manipulation may result in painful and serious exacerbation. It is therefore wise to be careful in the manner in which we examine these patients. In suspected cases of chronic gonorrhoea the husband should be questioned as to old attacks. The presence of "maculae gonorrhoeica" is strongly presumptive of gonorrhoea. The meatus urinarius stands open in two conditions, first, in women in whom the declining years of life have caused absorption of the fatty tissues and consequent retraction of the connective tissue, and, second, in cases of gonorrheal urethritis. Discharges from the vagina, cervix, and cervical canal, including discharges pressed out from the urethra, should be carefully examined microscopically. Negative findings do not preclude the disease, as the gonococcus may disappear from the discharges after a certain length of time, while positive findings establish the diagnosis. A latent gonorrhoea may persist for a long period of time only to be lighted up by a miscarriage or

labor. Gonococci found in particles of tissue removed at the time of operation is proof of the presence of the disease.

Puerperal infection resulting from the gonococcus is of a mild type, this may also be the case in certain other infections, even in the streptococcus. In abscesses due to the gonococcus, the gonococcus dies in a comparatively short time and the pus becomes sterile. This is what makes operations for abscesses of gonorrhoeal origin comparatively safe. This is not so in streptococcus infections, which are always attended with much graver consequences, even in long standing cases.

Streptococcus pus tubes without an accompanying parametritis is very rare, and pyosalpinx of streptococcic origin occurs in probably less than four per cent. of tubal infections. In pyosalpinx the virulence of the gonococci may disappear in from one to four months, in most cases in from one to one and a half months after abscess formation. It is therefore usually advisable in these cases not to operate prior to three months from the beginning of the infection. Under proper treatment some cases of pyosalpinx recover within three or four months, rendering surgical aid unnecessary.

Ichthyol and glycerine tampons together with bichloride of mercury douches render good service as local measures. The virulence of gonococcal pus may last for several months, and radical operation during the virulent stage may result in the dissemination of the infection with a consequent gonorrhoeal peritonitis, arthritis, or endocarditis with possible fatal results. In streptococcus inflammations we can usually obtain a history of puerperium, an attempted abortion or miscarriage, curettage, or other intra-uterine instrumentation, such as the use of a stem pessary, or passage of sounds. We may also find fibroid or cancerous involvement of the uterus, or chronic inflammatory disease. About twenty-five per cent. of puerperal infections are gonorrhoeal, and usually run a mild course.

Streptococcic and staphylococcic puerperal infection may run a mild course. We may find a double lesion in the form of parametritis and a salpingitis. A double or mixed infection may occur in a single lesion, though this is rare. Streptococcic infection passes through the uterus into the connective tissue or parametrium, and not infrequently thence into the peritoneum, or it may pass through the tube into the peritoneal cavity causing fatal septic peritonitis. As a rule all streptococcic inflammations are parametrial wholly or in part, and usually all

parametrial inflammatory enlargements are streptococcic in origin.

The virulence of the streptococci lasts indefinitely, often for many years. It is therefore important to diagnosticate between this and other infections since abdominal section for a streptococcic mass in the pelvis is always attended with danger, and may be followed by a fatal peritonitis. In cases of pelvic abscess of streptococcic origin it is wise therefore to operate extra-peritoneally by incision into the vagina, or extra-peritoneally above Poupart's ligament, in order to avoid the dangers of fatal septic peritonitis.

Primary gonorrhoeal infection occurs most frequently about the vaginal outlet and meatus urinarius, and secondly the cervix uterii. The tissues affected by the disease are the vulva, cervix, uterine canal, fallopian tubes, ovaries and peritoneum. The urethra and bladder are not infrequently involved with extension into the ureters and kidneys, often producing suppuration of these organs. Metastases may occur in the lymphatic glands and joints, especially the knee, and endocarditis may ensue as a complication. Anaemia and general debility with chronic or incurable invalidism may take place. The saying that a case of gonorrhoea is of as little consequence as a simple "cold" is the acme of absurdity, as permanent disability and death occur not infrequently as a result of the numerous serious complications of this baneful disease. Systemic involvement as extensive as that produced by the spirochoeta pallida may take place as a result of the introduction of the gonococcus of Neisser into the human organism.

The toxine produced by the dead gonococcus is known as gonotoxine. It causes abscesses similar to the gonorrhoeal abscess, and in many cases is disastrous in its effect. The germ itself is a pus-producing organism, affecting chiefly columnar epithelium. Sterility is a frequent sequence of this disease. Blindness in the new-born frequently results from gonorrhoeal ophthalmia, and transmission of the germ to the eye from carelessness in cleansing the fingers may produce similar results in the adult. Gonorrhoea of the rectum and other organs is not infrequent.

The acute stages may not be observed in the female while they are always evident in the male. The treatment in the acute stage consists of rest, absolute cleanliness, a bland diet, with plenty of water, preferably alkaline waters, to wash out

the bacteria. Meat should be taken sparingly and spices and stimulants of all kinds should be forbidden. Instrumentation should not be resorted to for fear of carrying the infection higher up into the cervix, endometrium and tubes, and producing serious extension of the disease into these and other parts. Coitus should be prohibited, and the patient instructed as to the manner of preventing the conveyance of the disease to other parts and persons. Such internal medication as required to relieve the pain and irritation of the parts affected should be prescribed. The external parts should be bathed two or three times daily with a boracic acid solution, or other mild antiseptic, and clean pads applied frequently.

In sub-acute and chronic cases the most effective treatment is the local application of silver nitrate, ten per cent. solution. Great care should be taken to see that all the folds and crevices of the vagina are thoroughly treated, and if the cervical canal has been infected, applications of silver nitrate should be made within the canal. Following this treatment the vagina should be well smeared with vaseline and packed with cotton or gauze, or a tampon medicated with ichthyol and vaseline, or ichthyol and glycerine, ten per cent., is placed in the vagina. The packing or tampon is removed in forty-eight hours and douches of permanganate of potassium one to five hundred, or creolin, or bichloride of mercury one to four thousand. The local treatments should be applied two or three times a week with the daily use of antiseptic douches when the tampons are not in use. Protargol ten per cent., or argyrol twenty-five per cent. may be substituted for the silver nitrate, but the latter are not as effective in destroying the bacteria. Where the urethra is involved a Kelly's urethroscope should be introduced to within a short distance of the bladder and application of solution of silver salts applied the entire length of the urethral canal. It may be advisable to use ten per cent applications of cocaine in the urethra in painful cases prior to these applications. The ducts of Skene's or para urethral ducts, and Bartholinian ducts, if involved, are treated by pressing out the purulent discharge and using injections of silver salts with the aid of a blunt pointed syringe. In obstinate cases these ducts should be incised freely under local anaesthesia and thoroughly cauterized.

Abscesses demand incision and drainage. In gonorrhoeal erosions of the cervix pyroligneous acid full strength is prompt-

ly curative. This acid should not come in contact with the skin as it is very irritating and painful. It is best applied with the aid of a cylindrical speculum. Where vaginal treatments produce much pain, a local sedative in the form of a tampon medicated with a ten per cent. chloral hydrate in glycerine is most grateful to the patient. As to material for tampons lamb's wool is the best. It is soft and pliable, readily adapts itself to the parts and is worn with comfort. The frequent and liberal use of aqueous thuya is serviceable in some of the old intractable cases.

In gonorrhoeal cystitis douche the urethra and then the bladder freely with a two per cent. solution of kali permanganate. Protargol, beginning with one-tenth of one per cent. gradually increasing up to one-half of one per cent., renders good service. It may be used in solution up to one or two per cent. Silver nitrate one to five hundred, increasing one to two hundred and fifty may be used. Bladder lavage with a saturated solution of boracic acid, followed by the instillation of an ounce of a ten to a twenty-five per cent. solution of arylol, the latter to be retained, has given most satisfactory results in clearing up old cases of gonorrhoeal cystitis. The treatment may be given once daily if there is much secretion, and as the patient improves every second or third day. In sub-acute and chronic cases vaginal douches of bichloride of mercury one to four thousand are given. In cases which do not respond to the treatment outlined use one to two drams silver nitrate three to five or ten or even twenty per cent. solution by means of a cylindrical speculum, pushing the speculum in and out so as to bring the solution in contact with the cervix and vaginal mucous membrane. This may be repeated twice a week for some weeks beginning with the weaker solution and gradually increasing to the stronger. Other cases of chronic leucorrhoea do better on dry treatment by insufflation of a bland powder, or mildly antiseptic powder such as boracic acid, iodoform, etc. This may be repeated daily. Tampons of zinc oxide ointment are often useful. In cervitis and endocervitis of gonorrhoeal origin the cervix is often obstructed with a thick, gluey discharge causing sterility. This slime should be removed by solution of soda, five, ten, or twenty per cent. by means of a cylindrical speculum. Hydrogen peroxide is also a great solvent for this tenacious mucous. The Bier hyperaemic tubular speculum is of great service in this class

of cases, removing the secretions readily. After removal of the tenacious mucous, tincture of iodine should be applied, later silver nitrate ten to thirty per cent., then chloride of zinc ten to fifty per cent., the latter to be used on the cervix only. In some of these cases it may be necessary to perform a discission of the cervix, or incising the posterior wall of the cervix, which gives prompt results.

In gonorrhoeal endometritis the discharge is worse for a week or so before or after menstruation. Treatment must be administered carefully and skillfully as a salpingitis is liable to result. Formalin ten to forty per cent., or silver nitrate two to ten per cent in intra-uterine applicators. Peroxide of hydrogen five to ten per cent. and formalin ten to forty per cent. may be carefully injected into the uterine canal by means of a specially constructed syringe. Great care must be used not to force the solution and secretions into the tubes and peritoneal cavity. When the tubes and ovaries are acutely inflamed, rest in bed, cold applications, and remedies for the inflammation and pain are required. As long as the tubes are sensitive and fever is present no local treatment should be given. After pain subsides use ichthyol and glycerine tampons, ten per cent.

Give large, prolonged, low pressure hot douches, applying vaseline to the skin about the vulva to prevent the water from burning the cutaneous surfaces. Hot douches given in the acute stages are liable to produce abscess.

When shall we operate for adnexal disease? First, large abscesses of the tubes and ovaries by vaginal incision or above Poupart's ligament. Never operate in acute inflammation of the adnexa unless you find pus, then the operation should be performed extra-peritoneally. Otherwise there is great danger of producing an acute fatal septic peritonitis.

In chronic cases of adnexal disease with enlargement of the adnexa, in women who are obliged to work, it is advisable to operate if the size of the enlarged mass is not reduced after several weeks of careful treatment. In chronic salpingitis, if there is not satisfactory improvement after several months' treatment, operative interference should be resorted to. In women of affluence where they can afford to spare the time, treatment may be followed up from one to two years before operating.

The radical operation is the operation of choice in cases of gonorrhoeal disease in the uterine appendages, extirpating the

uterus and adnexa in cases where both tubes and ovaries are diseased. Where the uterus is left in, adhesive and painful conditions are apt to follow. I have been obliged to extirpate the uterus at a later date in cases of this type. If the disease is entirely limited to one tube, or a tube and ovary, unilateral extirpation should be performed, removing a wedge-shaped portion of the uterus at the insertion of the tube in order to remove the tube in its entirety. If the uterine portion of the tube is allowed to remain in, troublesome sequellae may be annoying to the patient and vexing to the surgeon.

Conservative surgery in gonorrhoeal adnexal disease is often bad and the results disappointing. Do not perform curettage in gonorrhoeal endometritis. In old cases of para and perimetritis with displacements of the uterus and adhesions, tampons, prolonged hot douches, the psychrophore and pelvic massage are sometimes beneficial. Never massage where the adnexa are diseased. If these measures fail, surgical treatment should be recommended.

To summarize:

1. Gonorrhoea is a purulent inflammation caused by infection with the gonococcus of Neisser.

2. Most cases of purulent vulvo-vaginitis in children are of gonorrhoeal origin.

3. In cases of chronic gonococcal infection, first the pelvic inflammation is preceded by evidences of a gonorrhoea, or comes on without apparent cause, and, second, the lesion is in the tube and may involve the ovary and adjacent pelvic peritoneum, shows little or no involvement in contra distinction to streptococcic infection which usually involves the parametrium.

4. In parametritis a history of the puerperium, miscarriage, or instrumentation is usually obtainable.

In abscesses resulting from gonococcus infection the pus becomes sterile in three or four months, rendering abdominal operations comparatively safe after that time. Staphylococcus infections maintain their virulence indefinitely and consequently should be incised and drained extra-peritoneally. Intra-abdominal operation in these cases is liable to set up a fatal peritonitis. This fact makes differential diagnosis previous to operative interference a matter of vital importance.

TREATMENT OF MENSTRUAL DISORDERS.

BY

D. P. MADDUX, M. D., CHESTER.

IN initiating the treatment of the disorders under consideration, as in so many other conditions that come under our care, the most essential element is a complete physical history to commence with, and the delayed or ultimate failure in many a case, is in not starting right.

This statement seems like a trite platitude that should be apologized for, but so many sad mistakes are made from the lack of observation and thoroughness, rather than a lack of knowledge, that I am tempted to obtrude it.

If our history of the case cannot be complete and exhaustive, as is often the nature of the conditions, let us have a correct scale of values, and at least accurately obtain those facts that are essential.

May I be pardoned for the use of the personal pronoun, it is not an exaggerated ego, but the fact remains that when one gives his personal methods and experience, he cannot avoid the use of that obtrusive letter.

I know of no better plan to commence the history of a case than that suggested by Hahnemann, of permitting the patient to first narrate that part of her history that appeals to her; and besides, being a feminine patient, we cannot stop that proclivity if we wished to.

Then, if her narrative contains sufficient pathognomonic symptoms and modalities to base a prescription upon, shall we match symptoms, take our little fee, and stop? I think not.

The first information that I want clearly set forth is the *duration* of the trouble. When did she first start to have trouble with her periods? not to be satisfied with an indefinite number of years; but cross-examine, until that point is fixed beyond confusion. If we get a clear history that the woman has always had painful periods, then we have good reason to think that she has some congenital defect, or some systemic trouble has existed since she reached womanhood.

Again, if we find that the woman has had a few years of uneventful menstrual life, and later she suffers, we must try and trace with as great a degree of accuracy as possible, the

exact time when the abnormal started, and all the circumstances attending perverted function: if it followed an injury, if it came on soon after marriage, if it followed an attack of illness, not apparently related to pelvic trouble, if it followed any change of occupation or environment, etc., etc., must be determined in a negative or positive way, and for future reference, the facts should be recorded in a case book.

Then, before any of the details of the character of the perverted function are considered, investigate as to the general health of the patient: inquire as to other symptoms she may have, for the moment forgetting she has pelvic organs. Note her skin and mucous membranes for evidence of anaemia, investigate the condition of heart, inspect tongue, inquire as to the condition of bowels, and learn if she has the pill habit, note nervous symptoms, estimating the neurasthenic element, get a history of any antecedent illness; and if symptoms other than pelvic are developed, ascertain whether they preceded or followed the disturbed menstruation: this I regard as one of the most important points to be developed, the relation on point of time of the systemic and pelvic symptoms, and upon this point alone I often draw the line between a purely systemic treatment and an operative one.

Another point to be developed in the consideration of the treatment of females, is the universal inquiry as to the menstrual function when they come to us for treatment of other troubles. It is time we have done away with the thought that the patient comes to us for the treatment of the special maladies of her own selection. It is not for the patient to say, "I want something for headache, or backache, or constipation, or nervousness," or for any other symptom or condition of her own selection; that is entirely without the patient's province of nomination, and unless she comes to us for our best professional judgment and advice, she had better stay away until she gets into that attitude: I speak thus, because patients are unduly insistent upon the relief of a certain subjective symptom, and will evade any reference to symptoms referable to the pelvic organs.

We cannot excuse ourselves by the fact that the patient made no reference to that condition herself; but must elicit the positive or negative facts ourselves; often by so doing finding the true key to the situation.

Again, many ladies who are not prudes, hesitate about men-

tioning these conditions, even to their physician, and reasonably expect him to take the initiative in approaching that subject.

Having taken the general survey, it is then time to direct specifically our questions to the pelvic organs, and after determining the duration, and the circumstances attending the first perversion, ascertain whether she always has pain or other abnormalities at her periods; then again ascertain the circumstances attending the return of the aggravation: we can at least throw out an active organic change during the period of quiescence, and suspect the lighting up of some old trouble in the recrudescence period.

If the trouble is amenorrhoea, the general health of the patient is the matter of primary consideration; for if the menses have once appeared and later cease, we know of course that atresia or other mechanical causes are not operative, and we must consider pregnancy, shock, and under shock I would group the "wet feet" and other nervous and psychic phenomena; and the constitutional conditions such as anaemia, tuberculosis and other forms of ill health.

If the menses are delayed and painless, we can absolutely exclude any condition capable of being relieved by mechanical or operative measures: if the menses are regularly delayed for a few days and painful, we must consider the possibility of some obstructive or inflammatory condition being present, and if the pain persists after the flow is well established, we are warranted in believing that some inflammation of the uterine canal is the cause of the trouble; but more anon when we consider the subject of dysmenorrhoea more specifically.

In considering the problem of the treatment of disorders of the menses, we should divorce our minds as completely as possible from the view point of menstruation as a pathological process. When the Almighty evicted Eve, after her interview with the snake, He is said to have informed her very positively that she need expect pain in childbirth, yet He did not, as far as history goes, give her the slightest intimation that she need expect any pain or trouble with her menses; and in real seriousness, to pursue the same line of analogy, it is sin and sinning that has caused most of her trouble along that line ever since; either the sinning against some natural law of living, or as the victim of the sin of another, in violating the law of social purity.

My mental attitude in the consideration of a case of perverted menstruation, is I believe quite contrary to the position that some of my professional confreres assume it to be. My first thoughts are not, what does this case present that can be corrected in a surgical or mechanical manner, but in taking a preliminary survey, my primary consideration is to determine general systemic faults that are the underlying causes of the trouble.

Let us consider some.

Constipation, as a direct and indirect cause of menstrual trouble is an overlooked factor, or its relative importance not properly estimated. Do we pay sufficient attention to postural defects as a cause of constipation? Civilization has brought about a radical departure from the normal and natural method of defecation. The natural posture, for man or woman, is the squatting position, with the acutely flexed thighs against the abdominal walls, bracing it, and affording the abdominal muscles aid and support in the expelling effort; but when a woman is seated with her body at right angles, the abdomen encased in long, rigid corsets, there is a mechanical interference with the act, that will well nigh prevent it.

The insistence that the act of defecation shall be attempted without corsets, coupled with instructions as to the calisthenic development of the abdominal muscles, has enabled me to afford material relief to many women.

Then, too, the undue straining, augmented by postural defects, the insufficient emptying of the rectum and sigmoid assist in causing and maintaining many of the malpositions of the uterus, that in turn cause much of the trouble at the menstrual period.

I regard the association of constipation and chlorosis as more frequently one of cause and effect, than of co-existing evils. It may not be sound and up to date pathology to consider constipation as a cause of anaemia; and I know that it is only one of the causes; but in my judgment it may be the primary and sustaining cause of some cases of anaemia, and its correction an absolute necessity in the cure of the anaemia.

There are more complex and frequent cases of autogenous intestinal toxemia than we yet recognize or correct.

The subject of the correction of constipation is too big for me to become side-tracked on, but we must recognize that we are not correcting the evil when we merely wash out the rec-

tum, give a purge, or give alone the homœopathic remedy: we must, back of that, give our attention to the matter of exercise, dress, diet and associated conditions, until we get our patient back to normal living.

Nutritional changes play a more important role as etiological factors in menstrual disturbances than is generally credited, and faulty metabolism, as expressed in excessive gain or loss of tissue, often exhibits itself in an alteration of the menstrual function.

The modern concept of the metabolic process, dealing with the end results of food products, with cell repair and breakdown, at points remote from the digestive tract, but reinforces the importance of giving the closest attention to this condition; and the relation of metabolic disturbances to anaemia, plethora, and neurasthenia is so intimate as to enforce our consideration.

All the other elements that go to the up-build or the deterioration of the woman's general health are matters for us to investigate, and if possible correct. There may be occupational or domestic conditions we cannot improve, there may be insufficient or incorrect diet we can do little to modify, there may be overwork we cannot lighten, there may be care and worry we cannot banish: we all meet these cases, but they are not all of this class who come to us for advice, and my plea in this crude paper is quite as much for physicians to rise to the proper dignity of their profession, and become real medical advisers to their patients as to matters affecting their health, rather than to content ourselves with being merely drug dispensers, to relieve a symptom of the patient's own selection.

I don't suppose that we will ever succeed in getting women to dress rationally, for they seem to make more radical departures from the rational standards every year; but we can tell the young girl who delights in French heeled low shoes, thin hose, tight corsets, peek-a-boo shirtwaists in winter, the risks she is running: we can warn the woman who has started the neurasthenic pace what the terminal station on that trip will be: we can talk plainly to the girl or woman who thinks more of conforming her external figure to the prevailing mode than she does of the position into her abdominal and pelvic organs: we can get the candy-eating, novel-reading, lazy, in-door girl into more correct habits of living, or at least make her recognize what a certain foundation she is making for ill health, we

can indicate to those who have the opportunity of taking more sleep and more rest, the improvement that would take place in their health by so doing, we can warn parents not to put too many tasks upon their girls in their adolescent period, we can teach a girl how to take a deep breath, we can outline diet, and suggest exercises for flabby, disused muscles, we can endeavor to inspire a wholesome ambition for health; what if we often fail? the failure is not so disastrous or discreditable, as the failing health of a patient from the failure to receive the proper suggestions.

I have found myself tempted in approaching this big subject to consider it along general lines, rather than to apply myself to the consideration of the topic as conventionally laid down in the text-books, because the perversion of the menstrual function has so frequently as its fundamental cause the violation of some of the laws of hygiene, that we perhaps perform a service of doubtful value, if we merely prescribe for the relief of a symptom, without pointing out to the patient the cause and correction of the trouble: nor do I wish you to consider what I have read as merely a prelude; it is the main and most important part of the paper, if there be such a part.

In considering the treatment of amenorrhoea, I will tell you in advance, like the boy with the core, or the snakes in Ireland, "There ain't goin' to be no treatment of amenorrhoea." I only know how to treat what I suppose to be the cause, and not the negation.

As to the use of emmenagogues, so-called, either homœopathic, allopathic, or compound cathartic, I have experimented with them all, and have at least arrived at the Oslerian degree of wisdom of knowing the worthlessness of their unaided use. I know of no emmenagogue that is both harmless and efficient, for the harmless ones are not efficient, and the efficient ones are not always harmless.

We must consider the absence of the menses merely as a symptom of some other condition, and not attempt to prescribe for a negative condition. If the menses have never appeared, we must look to the general development of the girl, nor let her mother fret because they have not arrived. Some girls do not ripen as fast as others, and if the general health is good it is worse than folly to attempt to anticipate nature, as it is to try to help a boy raise a beard.

If the menses have not externally manifested themselves,

and yet at certain regular periods the girl has definite pain referable to the genitalia, ask the mother to investigate, tell her to separate the labia, and under good light see if the passage is open sufficiently to permit the blood to come out.

Congenital atresia, sufficient to partially or completely obstruct the outflow of blood is not so phenomenal that we should fail to be on the outlook for it.

If there exists mechanical amenorrhoea, or rather the external evidence of the presence of the menses suppressed by mechanical obstruction, it must be dealt with according to the severity of the symptoms: where I suspect it, I have been accustomed to instruct the mother (previously telling her how to do it in a surgically clean manner) to insert the small tube of a fountain syringe into the vagina, and with the girl recumbent, give a copious douche of hot sterile water; this will determine the potency of the vaginal exit, and the relaxing effect of the hot water will have a beneficial effect upon the cervical muscles.

If the conditions persist in spite of this, and the suffering or other symptoms are marked, I would urge an examination.

I have had three cases where I found the vaginal outlet occluded, and on incision a large amount of dammed up clotted blood was liberated; and I recall two cases where the blood was dammed up within the uterine cavity, sufficient to palpably distend the uterus, and I think it is Howard Kelly who reports a fatal case, in which pregnancy had been suspected, that was due to the damming up of blood within a virginal womb, the external flow never having evinced itself.

Undoubtedly chlorosis is one of the most frequent causes of primary amenorrhoea: each of you have your own method of treating it: fresh air, iron, and exercise are the conventional trio to meet this condition. I would modify this formula by saying more rest, fresh air without too much exercise, iron, arsenic, nux, or whatever remedy is indicated, hyper-nutrition.

I think that we instruct our anaemic patients too frequently to exercise, when we should urge them to periods of longer and more methodical rest. It has been shown that when chlorotic patients exercise, even after a walk in the open air, that the blood pigment in the urine increases over the amount present when at rest.

The element of constipation, as I previously indicated, is one that should have constant attention, and its correction will

often cure the anaemia, and the cure of the anaemia will bring on the menstrual flow: this may seem sort of "The House that Jack Built" way of getting at it, but it is worth the trial.

The neurotic element, in over-taxed school girls at puberty, is one that is most difficult of correction. The conflict of ambition and tired nerves is often a disastrous one. That unaccountably tired feeling, that otherwise energetic girls feel at this period of life, must be recognized as a demand of nature for more rest, and not treated by so-called tonics that will urge a more rapid pace. The beginning and the ending of a woman's menstrual life are marked by vaso-motor and neuropathic conditions, that must be corrected by prescribing for the totality, with an ever alert attention to the laws of hygiene. Secondary amenorrhoea, or where the menses fail to reappear at the regular time after they have once evinced themselves is always due to sickness, pregnancy, or the sequence of pregnancy. This seems a sweeping statement, but an analysis of the cases where the flow is checked by getting the feet wet, change of climate, nervous or physical exhaustion or the many other assigned causes will show that there is some impoverished blood or an impaired nervous apparatus: good blood and vigorous nerves will always bring menses on schedule time if the woman is not pregnant.

I think it is our duty to help correct the general error in the feminine mind as to the relationship of cause and effect in the cessation of the menses: we are so often compelled to listen to the popular error of attributing all the ills the woman has at the time the menses cease, to the fact that the "flow did not come," while the reverse is true, the "flow did not come" because of other conditions being wrong in her system. This fact is apparent in the more serious and easily recognized form of sickness, such as tuberculosis, typhoid, the exanthemata, etc.; but it is equally true in the not so easily recognized and defined nutritional and tonic impairments.

To my mind the effort to bring on flow in these cases is paralleled by our attitude toward gas in the early days of laparotomy, when we were less certain of our technique, and almost as soon as the patient got back into the bed we started to try and make her pass gas. It was not that the passage of gas was such a vital performance, but its passage was the assurance that the surgeon wanted of the safety of the patient. The internal medication is based upon precisely the same rules

governing all other prescribing, meeting the totality; nux and ignatia have helped me quite as much or more than pulsatilla, and hygiene more than all.

When the menses are delayed or checked as the result of the exposure to colds, in an otherwise healthy woman, we usually find that there exists a considerable degree of active congestion of the uterus, sometimes an actual endometritis; in such cases rest in bed is most helpful. I also use with benefit the depleting tampons or suppositories, and when assured of the absence of pregnancy have in several instances painted the cervical canal with iodine.

I have in a number of cases used the Faradic electricity, placing a small cathode within the cervical canal, and the positive on the lumbar region, and permitting a pleasantly tolerated current to circulate for ten or fifteen minutes; this method I have used with best success in treating those cases which are persistently a few days overdue, and institute the treatment for two or three days in advance of the expected time of the flow.

My experience with the use of hot packs, hot drinks, sitz baths has not been such as to warrant their frequent use, but their use cannot always be denied because of the psychic effect upon the patient.

In several cases of amenorrhoea where I felt that the neurotic element was predominating, and where the patient had recurrent vaso motor and neuropathic symptoms, I have obtained much apparent benefit by a slight scarification of the cervix, whether this acted suggestively to the uterus and to general nervous organism, or whether the tangible evidence of blood was the psychic auto-suggestion needed to restore nerve balance, I am unable to decide; but the expedient is often worth the trial.

Let us now consider the other forms of menstrual disturbances that call for our attention; these can be grouped into two classes—excessive flow, and an unduly painful flow: and as there exist no standards for the amount of the flow, or the degree of discomfort, we are forced to give special attention to the personal equation.

Metrorrhagia, or uterine bleeding not of menstrual origin, has no place in the consideration of the topic we are discussing: but the failure to distinguish this condition has resulted in some deplorable loss of life.

Familiar names sometimes confuse impressions of condi-

tions. The term menorrhagia has such a harmless sound that we have come to look rather complacently upon it, and perhaps associate it with merely an excess of the normal flow, rather than an abnormal condition: let us call it plain uterine hemorrhage, and with that label we have a clearer viewpoint of the condition.

I have not taken the time to look up the records of the relative proportion of the various causes; because most of these records are compiled from extreme hospital cases, and as I know from experience, a hospital record will not fairly reflect the routine of general practice.

The first point to make clear is the history of the case, and to try and determine whether the trouble is systemic, local or both.

I think that it is a good mental habit to consider in our first study of the case that it may be due to constitutional conditions; this will tend to a more careful study of the patient, and to the investigation of *all* conditions that may help to aggravate or perpetuate the trouble, and is the only fitting preliminary to investigating pelvic conditions: by this method the best medical and hygienic prescribing can be done, and important details will not be overlooked that a primary study of the pelvic study might cause.

The matters to which I am specially alert, are the heart, blood, and the relation of the perverted flow to antecedent illness.

The most persistent case of uterine hemorrhage that I ever cured medically, was by getting the patient to take more rest, and in helping a broken compensation that had previously been unrecognized. Syphilis and tuberculosis are both factors, for while we are accustomed to associate tuberculosis only as checking the menses, nevertheless tuberculosis of the tubes is not an infrequent cause of excessive flow.

Young girls, during their first year of menstrual life not infrequently suffer from excessive flow following minor ailments, or from no assignable cause; this, I think, is correctly attributed to imperfect uterine development.

The chlorotic and the hemophilic patient both present constitutional conditions that can only be reached through systemic treatment. The relationship of rheumatism, malaria or other infective conditions are matters that should be determined as soon as possible. If the excessive flow has not been of great

duration or severity, we may prudently confine our first interview to symptomatic prescribing, with proper hygienic recommendations; but if there is a history of long lasting excess, I regard it our duty to *insist* on an early examination.

We should approach this examination with an absolute open-mindedness as to what we may find, and this brings us to the consideration of the search for the local cause of uterine hemorrhage.

My own practice is to first examine digitally, and then follow with the speculum. I want first to determine the feel of the cervix, as to induration, or softness or nodulations, or lacerations. I want to determine the size and position of the uterus, and the size, sensitiveness and location of the tubes and ovaries: then I introduce the speculum, inspect the color of the mucous membrane, look for cervical erosions or nodules, note the shape of the external cervical canal: if my previous findings have been negative I then sound the uterine canal, provided I feel safe in so doing without starting dangerous bleeding. By sounding the depth and position of the uterus are confirmed, and an aid given to the detection of growths. There have been several cases, with a patulous canal, where by the sense of touch of the sound I have been enabled to determine the presence of a softened mucosa; the sense of resistance being so much less than the normal tissue.

Let us assume that our examination reveals no gross pelvic lesion, or at least one not clearly indicating immediate operative procedure, and to come to this conclusion we must of course be able to exclude a great and varied number of conditions: if we can come to this determination, and the bleeding is moderate and of not very protracted duration, we are justified in the temporary dependence alone upon systematic and hygienic prescribing, but if the bleeding is depleting, and we have a history of long lasting depleting periods, we are not justified in ceasing our examination at this point; but frankly tell the woman that our examination thus far has failed to reveal the source of her trouble, and in our judgment everything should be done in the matter that can be done to find precisely what the trouble is, and as I put it, examine the inside of the womb under ether.

I endeavor not to needlessly alarm the patient. I tell her that the condition may be nothing serious. I simply don't know the cause of her trouble, and have no way of knowing

without examining the inside of her uterus; it might be unhealthy mucous membrane, or it might be the beginning of cancer.

If the woman or her family declines, the responsibility is theirs; but I cannot help but feel that when a physician permits long lasting excessive uterine hemorrhage at the monthly period to pass by without suggesting such an examination, the responsibility of undetected malignancy rests upon the physician.

I have learned this caution through my own blunders. I have found cases of malignant growth of the uterus that were too far advanced for favorable treatment when I first discovered them, in patients who had regarded me as their family adviser, that I felt that I had been a mighty poor adviser, and had not exercised the same caution for their protection that I would have desired to be exercised for one of my own, so in recent years my rule has been as indicated.

The examination under ether will, of course, give us an advantage not possessed in the conscious state, and such an examination involves the dilatation of the canal sufficient to obtain scrapings for pathological examination. As a matter of fact there does not exist severe and dangerous hemorrhage, due alone to the menstrual epoch without the co-existence of serious systemic dyscrasia, or the presence of some disease or growth within the pelvic organs. Menstruation *per se* is a self limiting process, the point to plainly recognize is, the detection of what co-existing trouble is present.

A consideration of the treatment of the possible concomitant conditions that might act as causative factors in rendering the monthly flow dangerously protracted or copious would lead us over almost the entire field of gynecology, and would make this already too long paper indefinitely extended; any one of the themes would make an excellent study for any one meeting of the club: its consideration would involve the study of the treatment of displacements, of growths and infections within the uterus and its appendages.

One absolute essential in the treatment of a too copious flow is rest, not a relative, but an absolute rest in bed, and preferably with elevated hips. It is simply marvelous the complacent way that women and doctor often look upon uterine hemorrhage, simply because it comes from the womb, and because it is natural for the womb to have a slight bleeding at certain pe-

riods from that organ they permit liberties of motion with a free bleeding that they would not tolerate with a slight bleeding from other sources. I wish I had as much time to devote to the consideration of the subject of dysmenorrhoea as I have already devoted to the preceding subjects; it is a problem that appeals to me with ever-increasing interest.

There is such an inconstant proportion existing between the character of the pelvic lesion, and the apparent degree of suffering that makes one think more and more of the remark of old Godell of "the intangible, imponderable, invisible, pelvic pains of neurotic women" that are liable to be aggravated at the menses.

I have opened abdomens and found tumors as large as my head, or tubes as big as my first, or multiple adhesions, or a big misplaced uterus, and still that same patient complained but little of pain at the time of her periods.

There are clearly two sets of conditions, capable of acting separately or conjointly that are capable of making distress at the time of the menses: one systemic, in which nutritional and neurotic elements dominate, and the other the purely mechanical, and unfortunately we often have the two combined.

In my mind decidedly the most usual cause of dysmenorrhoea is acute or chronic inflammation of the uterus or its membranes. Some women have come to regard leucorrhoea as almost a necessary feminine evil, and have not been told that it is often, if not generally an indication of infection and inflammation of the uterine mucous membrane, but an infected, inflamed membrane in function gives pain.

There has come a wide departure in modern gynecologic thought as to the scope played by stenosis of the canal. As existing, *per se*, as an all-sufficient mechanical cause of dysmenorrhoea, stenosis of the canal has been relegated to a secondary plane, or to quote Kelly, "Contraction of the cervical canal has been properly almost excluded as a direct mechanical cause of dysmenorrhoea."

A large group of modern teachers also are now excluding flexions as a cause of dysmenorrhoea, asserting that the force of the flexion is more obstructive to the blood vessels than it is to the lumen of the canal, and attribute the pain wholly to the uterine and extra-uterine inflammation.

"It is true that inflammation in a sense causes the pain; but it is also true that it causes the flexure, and that the flexure,

once formed, tends to keep up the inflammation. The two constitute what may be called a vicious circle; the former producing the latter, and the latter reacting to aggravate and perpetuate the former."

The relation of diseased ovaries to menstrual pain is one that I feel less qualified to speak upon than I did formerly; the typical ovarian pain is pre-menstrual, radiates down the thighs and nates, and is accompanied by mammary pain, yet I have removed ovaries from patients having this symptom, and they have had the pain almost as bad afterwards. I am very pronounced in my opinion of the un wisdom of removing an ovary solely for a dysmenorrhoea affecting that organ; remove it if there are evidences of its being diseased, but not for the purpose alone of relieving the pain.

There is a very puzzling relation between tubal disease and dysmenorrhoea, often a moderately involved tube will give more trouble than one enormously distended, and I think the reason is that in those so extensively involved, nature has given up the struggle, and no ovule passes through.

The most intimate relationship between diseased tubes, and recurrent metritis must of course be remembered, and how the gonococcus may lie comparatively inactive in the tubes for long periods, only becoming more active when the uterus becomes more hyperaemic; thus serving as reservoirs for reinfection of the uterus.

In my judgment diseased tubes contribute their quota of pain at the menstrual period more by reinfecting the uterus, than they do by the mechanical obstruction opposed to the passage of the ovule.

Tumors, either extra-uterine or intramural may add to the distress of the menses, either by hampering the expulsive power of the uterus, or by pressure upon nerves, or by maintaining pelvic congestion.

Membranous dysmenorrhoea, which is of course merely a form of exfoliative endometritis, must be classified and treated as other forms of endometritis, and does not form a distinct variety of dysmenorrhoea, except in nomenclature.

I think that we must recognize the existence of a form of dysmenorrhoea that we can classify in no other manner than neuralgic, and which is a local expression of the neuralgic diathesis. It depends upon general rather than local causes,

and is usually attended with evidence of supersensitive nerves elsewhere.

The great difficulty with the treatment of dysmenorrhoea is that we are asked to treat it when the flow is actually present, when the mischief is done, as it were, rather than have the opportunity of treating the underlying cause of the trouble at the most favorable time.

When I am called to treat a woman with painful periods, I tell her that I can but palliate now, if she wants them cured it can only be by a course of treatment between periods.

The actual treatment of dysmenorrhoea must of course be largely addressed to the relief of pain.

In looking over my case book I find that I have prescribed belladonna more frequently than any other homœopathic remedy, and when we consider its relationship to inflammatory and congestive conditions, the reasons for its usefulness are apparent. Berberis has often aided some of the backaches, especially when there are urinary symptoms accompanying it. I have had clinical verification of gelsemium with the loss of voice during menses, and the characteristic langour. Ignatia is a remedy that I have used often with the thick offensive blood, and the characteristic nervous symptoms. Lilium tigr. has been prescribed quite as often upon the mammary and ovarian symptoms, as upon its dark flow, and hip pains. Nux vomica in the tincture has seemed to help when the bladder and bowel symptoms were prominent, particularly when the patient was particularly cranky and irascible. Sepia and sulphur although highly recommended have failed to score their first marked results for me in the relief of the pains.

I am frank to confess that there have been a number of cases that I have treated that I have obtained no relief whatever from the homœopathic remedy, and some of them were cases that had been the rounds of the school, to better prescribers than I pretend to be, who had as signally failed: a number of these I have given with marked temporary relief some of the coal tar analgesics, such as phenacetin, antipyrin or acetanalin; and I am equally frank in confessing that I have had cases that none of these have helped; that I have been compelled to give the full dose of morphia; but I have always emphasized the fact when I gave these drugs that I was not giving them to cure the trouble, nor would I repeat them for many periods; but insist that the patient must subject herself to treatment be-

tween periods if she expected a cure. I never give more morphia than is necessary for a daily treatment, and never tell the patient what she is getting.

In all cases of dysmenorrhoea, whether mechanical, neuralgic, or systemic I regard it as important for the patient to keep the lower bowels well emptied at the approach of the flow; many cases have been helped by inserting a soluble vaginal suppository, made with gelatin, glycerine, and containing some belladonna and ichthyol. The regularly inserting a glycerine tampon in the vagina for several nights previous to the flow will often allay the congestion and lessen pain. A hot rectal enema during the flow, often repeated several times, will prove a useful adjunct. Hot baths, hot applications to the epigastrium will often prove helpful in temporarily modifying the pain; but hot whisky in the full blooded plethoric patient will often do more harm than good, unless it acts, as it sometimes does, by rendering the patient the unconsciousness of a drunken stupor.

The only rational treatment of dysmenorrhoea lies in the precise diagnosis of the conditions that cause it, by the treatment of those conditions during the inter-menstrual period with the best balanced judgment of what the combined effects of proper hygiene, internal therapy, and mechanical or operative treatment will accomplish in the way of removing the causes.

BUREAU OF PEDOLOGY

THE AWAKENING.

BY

H. ELLEN WALKER, M. D., SHARON, PA.

WITHIN ten years there has sprung up in this country an extraordinary interest in child life. Out of this interest in children has developed more than a dozen scientific journals, and as many chairs in colleges. An entire new literature has been produced on the psychology of infancy and childhood. The contents of children's minds; their use of language; their

interests and ideals; their moral and religious conceptions at different ages; and the growth of the child's body at different periods as shown by weights and measurements receives attention.

Because of this new psychology, interest is awakened in the child's natural impulses and instincts, and by the motive activities in general. Their plays and games, their toys and play material, form one of the most interesting lines of study. This child study has carried the spirit and method of the new psychology into every intelligent home and up-to-date school room. The pioneer stages are well over and the time has come for these records to be made accessible to all students and practitioners of education.

The story of the efforts by which the rights of the child, neglected, dependent and delinquent, have come to be recognized, is too long to be mentioned here. Suffice it to say the founding of societies for the prevention of cruelty to children, a check upon the ill temper of parents, the legislation preventing child labor, the adoption of the probation measures for juvenile offenders, are of special significance; but, best of all, the recognizing of the other needs of childhood, the need of activity, inspiration and joy. These too are due to the ever improving modern education.

The city child is no longer obliged to live in the streets. Public playgrounds are conceded as his right. He is not driven to crime from sheer ennui; library doors swing open and settlement clubs and classes and elder brother clubs give him interesting forms of activity. Public natatoriums, with skating a close competitor in winter, and gymnasiums, both outdoor and indoor, have sprung up within the last three years all over the country, usually provided by women's clubs and public spirited citizens. Vacation schools, fresh air excursions, furnish him with new experiences and give an insight into the great world in which he is soon to take an active part.

Then we have the savings institutions, which furnish a series of aids or exercises in the formation of purpose; giving an idea of some sort about the child's own future and taking practical steps to control it. Saving develops a certain true personality and self-reliance by diverting the drink, tobacco, candy and chewing gum fund to the purchase of the home, of furniture, of tools, or a reserve fund, keeping the machinery of life going in times of scarcity.

And now in our schools we are looking for sound minds and sound bodies and wherever medical inspection has been established, good results are evident—epidemics checked or avoided, the mentally slow or the physically ill are given particular treatment by specialists, whatever the case demands; and surprising numbers of children have been found who through defective eyesight or hearing have been seriously handicapped in their school work. Enlarged tonsils, swollen glands and teeth all have their special attention. Other conditions, previously unrecognized, are found which have a great influence on the welfare, happiness and mental vigor of the child. Parents and school authorities are beginning to realize that the pupil, with defective nasal breathing may be quite as important to the State as the child with contagious disease.

American schools of every sort will be providing systematic instruction on Home Economics or living conditions. We are glad to observe that the ultimate issue of the movement is not so much a specialized education for girls, as a practical training in the common things of life for boys and girls alike. This wave of interest in childhood is now at flood tide and has swept over the entire civilized world.

Child study naturally leads one into eugenic education, and since it is of the most overwhelming importance there is, I believe, no greater need for society to-day than to recognize that education must include, must culminate, in preparation for the supreme duty of parenthood.

For some time past, the unpleasant fact that gross immorality is prevalent in our public high schools suggests the necessity of a more careful inquiry into the situation, and also presents one of the strongest arguments in favor of medical inspection in public schools. In one of the high schools of Minneapolis eighteen cases of gonorrhœa were reported. It is possible, of course, that the disease is contracted at red light resorts, but it is equally probable that the disease may be spread among high school girls. Every physician knows what a gonorrhœa infection means to both boys and girls, and none know quite so well, except it be the patient, the appalling disease and destruction that follow. This condition of affairs does not exist in Minneapolis alone; it probably extends over a wide territory. Pregnant school girls and infected boys are numerous enough to demand a painstaking investigation in public school morals. I tell you, it is left to the physician, in school or out of it, to

teach regarding these bodily functions, which exist not for the body, nor for the present at all, but for the future life of mankind. Youth must be taught that the racial instinct exists for the highest of ends, the continuance and ultimate elevation of the life of mankind. It is a sacred trust for the life of this world to come. We must teach the boys what it is to be really manly—the fine word used for the tempter of youth when he means beastly. To be manly is to be master of this instinct and the higher education of our girls as we must teach, will be lower and not higher, if it does not serve and conserve the future mother, both by teaching her how to care for and guard her body, which is the temple of the life to come and how afterwards to be a right educator of her children.

The physician has the divine privilege because of the knowledge of facts to stand as Longfellow's "Angel of Light" among boys and girls and explain the holy and highest ideals of life. What man can do for animals and plants can he not do for himself?

A new type of sanitarium is surely coming. We need not one so much to cure disease, but one to correct habits of living, where under scientific care habits may be gradually changed until normal conditions are reached. While in this business of serving humanity why not make our lives count at compound interest? If we teach one person how to live in this generation it will by actual count in twelve generations, or four hundred years in a straight line of marriage, effect more than thirty-two thousand persons. Physicians are as certainly responsible for posterity as any parent for any child. You have a rare chance every day or several times each day to teach the individual mother that her baby must not be nurtured on poisoned food and many times made drunken before it sees the light; then drink poison, eat poison, breathe poison, and be expected to have any mental vigor or energy; for alcohol has the greater effect upon these delicate cells in proportion to their immaturity. You all know the effects attributed to parental alcoholism are not in the category of transmitted acquirements at all. They are the results expressed in defect and deviation of development of the germ cells. Either directly through the alcohol circulating in the blood, or indirectly through the deterioration of the parental organism.

Since there is no wealth but life, how these lines of Wordsworth, written more than century ago, do now appeal to us:

“How piteous, then, that there should be such dearth
Of knowledge: that whole myriads should unite
To work against themselves such fell despite;
Should come in frenzy and in drunken mirth,
Impatient to put out the only light
Of liberty that yet remains on earth.”

Are you aware that the National Society for the Prevention of Cruelty to Children inquired into the ill treatment of cruel neglect of the children of this country in the year 1906, and it was reasonably and carefully estimated that over half a million children are involved in the total destruction of child life in a single year from alcohol and syphilis alone?

Is there any final and permanent means of arresting this terrible slaughter of child life with its singular and far reaching consequences, other than the elevation of parenthood? No legislation conceivable will wholly cure this evil nor avert its consequences; at bottom it depends upon human nature, and we can cure it only by curing the defect of human nature. The child study movement must include race culture study, and then it will be the epoch-making movement in the history of the world.

GLANDS IN ACUTE DISEASES OF CHILDHOOD.

BY

H. BIERMAN, M. D., BLOOMSBURG.

THE title of my paper would more properly read “Lymph Nodes in Acute Diseases of Childhood,” as it is the affection of these glands of which I would address you.

How frequently, just after patting ourselves on the back upon the successful termination of a severe attack of pneumonia in a child, are we surprised and chagrined to find a tender maxillary gland with every symptom of threatened suppuration. Or, how often, in what we would consider a mild attack of scarlatina, after we have assured the anxious parent that their fears of “something being left” are unfounded, are we annoyed at finding a large, unsightly and tender lymph node, with its train of unpleasant consequences.

I shall not go into the detailed anatomy of the lymphatic system, but briefly look over that of the glands. The lymphatic or absorbent glands, or lymph nodes as they are now more commonly known, are small, solid glandular bodies situated in the course of the lymphatic or lacteal vessels. They are found in the neck and on external parts of the head in large numbers; in the upper extremities, in the axilla, and in front of the elbows; in the lower extremities, the groin and popliteal space. In the abdomen they are numerous in the mesentery, and along the side of the aorta, vena cava and iliac vessels. In the thorax they are found in the anterior and posterior mediastina.

In the study of the effects of acute diseases of childhood upon the glandular system, the nodes of the head, especially those of the neck about the angles of the jaws, interest us mostly, as it is here we find the largest amount of trouble.

Etiology: Acute adenitis is most often associated with diphtheria, scarlatina, measles and influenza in all ages of childhood, as well as the commoner forms of throat inflammations and pneumonia. During the past winter and spring I have had my attention called to the large number following the acute lung inflammations of children. Infants seem to be most susceptible. The inflammation is undoubtedly due to the absorption of pyogenic germs and toxins, notably so in diphtheria and scarlatina, but may not show itself until the subsidence of the acute disease.

The changes taking place in the glands are acute congestion, with swelling, œdema, and active hyperplasia of the lymphoid elements. The process may terminate in resolution or in suppuration according to the intensity of the infection and the susceptibility of the tissues. When severe enough to cause suppuration, the adenitis may be accompanied by considerable inflammation of the surrounding cellular tissue.

The symptoms and course of the adenitis of the specific infectious diseases belong to their clinical history. Often after the subsidence of the acute stage of the attack of the disease, sometimes already after the initial symptoms, we notice an enlargement of the gland which becomes tender, the temperature of the body is increased, and all symptoms of an active inflammation are present. After a varying period of from several days to one or more weeks resolution takes place or suppuration ensues. Frequently for months or years the gland

remains enlarged and a hard marble-like structure testifies to a former seat of trouble.

Suppuration, fortunately, is infrequent except after scarlet fever and pneumonia. It is very rare after diphtheria, and when present signifies a mixed infection. After suppuration, if freely opened at the proper time, the abscess heals rapidly and permanently. Occasionally infection extends from one gland to another and a succession of these glandular abscesses ensue.

In the non-suppurative cases the swelling may be even greater than in those which suppurate; but it is less diffuse and apparently limited to the gland. It subsides slowly, and as has been said before, may take from four to eight weeks. When the chronic enlargement continues indefinitely the gland does not become cheesy, except from subsequent tubercular infection.

The diagnosis is easy. Following an acute disease it ought not be mistaken for mumps, which it unfortunately sometimes is.

Treatment may be divided into prevention and cure. In all diseases where the mucous membranes become foul, prophylaxis requires that they be kept as clean as possible by the use of antiseptic nasal and pharyngeal sprays and washes, as Dobell's or Seiler's solutions, or that of common salt. Possibly too little care and attention is paid to this matter.

In the stage of acute inflammation applications of hot or cold to relieve pain. If suppuration ensues a free incision will promote early healing and relieve pain, and rarely need curetting as in other forms of adenitis. Our Homœopathic remedies come into use as in other forms of inflammatory troubles. Aconite, Bell, Mercurius, Hepar. In the chronic form the lime salts, the iodides, and constitutional remedies are indicated. The practice of applying iodine by painting or inunction is of very doubtful value; personally I cannot say I have ever seen any benefit from it.

TUBERCULOSIS OF THE GLANDS.

BY

ANNA D. VARNER, M. D., WILKINSBURG.

THE lymphatic glands are located directly in the path of the lymphatic vessels. Their anatomical construction is peculiar, consisting of a capsule of connective tissue giving off from its

internal surface membranes septa or lamellae which radiate toward the center of the organ and break up into a number of bands or cords which interlace with each other in all directions and form in the central part of the organ communicating spaces called alveoli. These alveoli contain the gland pulp, but are not completely filled by it, the remaining spaces forming the lymph channel. The lymph is composed of plasma directly from the blood current, of substance from the worn out tissues and chyle directly from the digestive tract. Its circulation, owing to the lack of a strong propelling force, is very slow and as it winds its way through the channel of the lymph nodes, it is still more retarded by the presence of the diverticulum, hence morbid products, such as the tubercle bacilli are easily arrested and find in the sinuses a lodging place much to their liking.

The micro-organism of tuberculosis is rod-shaped, similar to that of syphilis of which by a process of evolution, in all probability it is an offspring. It is slow in its action and in order to have time to get in its deadly work, must lodge in some quiet nook or corner, where it will be undisturbed by active circulation. Herein lies the reason for the affinity between the tubercle bacilli and the lymph nodes, as well as the explanation of the much slower course the disease pursues when confined to the lymphatics.

There are four channels by which the tubercular infection may invade the body: traumatic infection or by injury to the skin, blood infection or hereditary tuberculosis, infection through the respiratory tract, and also by the intestinal route, or through digestive organs.

Dr. Warthin, pathologist at the University of Michigan, has made a careful study of the mesenteric and retro-peritoneal lymph nodes in all his autopsies for the last fourteen years. One of his most striking observations was the constant occurrence in all adults of small hyaline masses, which he interpreted as healed tubercles. In a series of cases of mesenteric gland tuberculosis examined by Hess, 60 per cent. were caused by the bovine type. This type greatly prevailed among children, whereas in adults the majority of infections were with the human variety. According to such findings the intestinal route of infection is indeed common, especially among children, and the reasons are obvious. Milk is their chief article of diet. They are the victims of unhygienic surroundings; they play

upon the floors and pavements and eat their food with soiled fingers, place pennies, marbles and all sorts of grimy articles in their mouths; bite their pencils and chew their finger nails, each others gum, etc., etc.

Cornet inoculated 3,000 guinea pigs and rabbits with bacilli in widely different spots, and found the first tubercular changes to occur either on the spot of inoculation or in the adjacent lymphatic glands. From this, Tendeloo reasons that if post-mortem examination of human body reveals tuberculosis of the mesenteric glands only, the infection was by way of the digestive tract; if one or more peri-bronchial glands only are diseased, the bacilli reached the glands through the lungs; if the cervical glands only are infected, the germs entered by way of the tonsils or mucous membrane of the throat and mouth.

Drs. Miller and Woodruff made a study of 150 children of tuberculous parents. In 86 the disease was found present. Sixty-one had definite pulmonary signs. Enlarged glands were present in 79, 40 of which could be proven tubercular. So prolific a writer as Woods-Hutchison concludes that reports like this support the idea that glandular involvement in the large majority of cases is secondary to involvement of the lungs and that immunity against pulmonary tuberculosis or inactivity of pulmonary lesions in children with glandular or osseous tuberculosis is due to the fact that they have served a considerable degree of pulmonary involvement. He also holds to the opinion that the infection occurs in the first few years of child life, and that the prevention of tuberculosis in children would soon eradicate the disease.

Warthin's idea is exactly the apposite, i. e., adults are more frequently infected than children.

Again, we have Dr. Shennan's report of post-mortems on 413 children who died from tuberculosis in the Royal Edinburgh Hospital for Children. The lymphatic glands were tuberculous in 340 of the 413 cases. The mediastinal glands were more frequently affected than the abdominal lymphatics, and while generally accompanied by recent tuberculosis of the lungs, in many cases it was evidently secondary to the glandular involvement. He considers the lymphatic glands of great importance in the invasion and dissemination of tuberculosis. All of which goes to show that post-mortem findings differ in different localities; that authorities do not agree in their opinions, and pathologists have much yet to learn about this dread disease.

However, from these statistics we draw the following conclusions, which have an important bearing upon the prevention and treatment of tuberculosis of the lymph nodes: Tuberculosis of the glands is more common in children than adults.

In the mesenteric form it is usually of the bovine variety and doubtless has its origin in the milk.

Obscure affections of children are more frequently due to tuberculosis of mesenteric or bronchial lymph nodes than was commonly believed.

CERVICAL TUBERCULAR ADENITIS.

In this disease, the submaxillary glands are usually involved first, followed by the post-cervical, supra-clavicular and axillary. The infection may finally extend to the bronchial glands. One or both chains of cervical glands may be affected. The lymph nodes enlarge very slowly. They are smooth, firm and gradually coalesce into an irregular mass. Frequently they break down and discharge, leaving a persistent sinus. There may be very little systemic disturbance in some cases; in others there is marked emaciation and night sweats. Nasal catarrh, enlarged tonsils, adenoids, otitis media, and eczema of the scalp, ears or eyelids are primary to, or coexist with this condition and confirm the diagnosis.

TUBERCULOSIS OF BRONCHIAL LYMPHATICS.

Here the tracheo-bronchial lymph nodes found at the bifurcation of the trachea, the bronchial lymph nodes located along the main bronchi, and the pulmonary lymph nodes found at the hilus of the lungs are the common seat of the infection. Other adjacent lymph nodes such as the anterior and posterior mediastinal, the tracheal, the œsophageal, and the jugular may also be involved. The tubercle bacilli gain entrance to the bronchial glands through the lymph capillaries via the lungs or they follow the direct route from the cervical group. There is nothing very characteristic in the symptoms of the early stages of this disease. The child emaciates and loses color, perhaps has an irregular rise in temperature; some cases are more acute and have a continual high temperature. Physical examination reveals little or nothing. Anteriorly dullness may be found over the first piece of the sternum or posteriorly from second to fifth dorsal vertebræ, but none save an exceptionally keen observer would be likely to distinguish these dull areas. Resistance may

be noticed deep down in the supra-sternal space. Rough, harsh respiration may be felt in the inter-scapular region. As the glands become more enlarged, pressure on the recurrent laryngeal nerve causes a paroxysmal cough resembling pertussis, but there is no mucus, no vomiting nor regular nightly exacerbations. Dyspnoea may be present. As the disease progresses the glands mat together and form a mass which sometimes produces pressure symptoms of an alarming character. Pressure upon the trachea will cause dyspnoea, cyanosis and even suffocation. Pressure upon the vena cava will cause cyanosis and puffiness of the face. Pressure upon the œsophagus will result in pain, difficulty in deglutition and even starvation. Pressure upon one bronchus may render parts of the lung useless.

In some cases the cheesy nodes become calcified or encapsulated and remain inactive. Measles, whooping cough, scarlet fever, or any acute disease may arouse the latent condition into one of activity. The disease may be transmitted to the pulmonary organs, to the brain or to remote parts of the body. "The nodes may suddenly break into the œsophagus, pericardium, or pleural cavity, or into the trachea causing expectoration of cheesy substance; into the bronchi causing an asperation pneumonia; into the vessels producing a miliary tuberculosis of the lungs. Death inevitably ensues." (Schlossman.) The diagnosis is not easy, and in the early stages may be overlooked. Schlossman says that "The lack of cause for the change in the general condition of the child is truly characteristic of tuberculosis of the lymph nodes." The cough is likely to be mistaken for pertussis; the acute form of the disease may be confused with miliary tuberculosis. When the infection is confined to a small area, and there is no caseation, the patient may recover. The prognosis is bad indeed when surrounding organs are involved.

TUBERCULOSIS OF MESENTERIC GLANDS.

In this form the disease is located in both the mesenteric and retro-peritoneal glands. In children it is sometimes primary and again it may be secondary to intestinal tuberculosis. When the abdominal walls are relaxed the glands can be distinctly felt on palpation, as single enlarged nodes, or agglutinated masses, commonly located near the umbilicus or the right iliac fossa. The digestion is disturbed, the stools are loose and

offensive, the abdomen is swollen and tympanitic, the patient is emaciated, anæmic, and has a moderate amount of fever. As the disease progresses other organs become infected, and the patient usually succumbs to a general tuberculosis. Here, too, the disease may exist in an inactive form or be overlooked in its early stages.

One of my patients—a boy—whose cervical glands were tubercular was operated for appendicitis and the mesenteric glands were found to be involved. Aside from two or three attacks of appendical pain he never had a symptom relative to the abdominal organs. In another instance a post-mortem upon a young girl revealed tuberculosis of the mesenteric glands when such a condition had never been suspected, nor were similar lesions found elsewhere in the body. So I repeat that when a child is anæmic, emaciated, debilitated, and repeated physical examinations fail to enlighten us as to the cause, tuberculosis of the bronchial or mesenteric lymph nodes is to be suspected. In such cases Von Pirquet's cutaneous tuberculin test would be of use in the diagnosis. Three spots are inoculated upon the lower arm. Prof. Medin, of Stockholm inoculates the highest point with a 25 per cent. tuberculin mixture, the middle point with a 10 per cent. solution, and the lowest point with a control liquid without tuberculin; this control liquid being composed of one part carbolic-glycerin and two parts physiological salt solution. Both Von Pirquet and Medin claim it is harmless and in a measure exact. That is, a negative reaction does not always mean no tuberculosis, but a positive reaction does indicate tuberculosis in some form. In the very early stages of gland and bone disease, the reaction is very positive. This aid to diagnosis is used very extensively in our dispensaries. I have used the ophthalmic test, but now believe the cutaneous test to be safer and better.

TREATMENT.

Granted that tuberculosis is one of the most common diseases in childhood, that the glands have an important part in the infection and transmission of the disease, and that the digestive tract is the most frequent channel of infection, then indeed is prevention of tuberculosis more important than the cure. This can be accomplished in various ways: attention to carious teeth, enlarged tonsils and adenoids, to hygiene and the environment of the child; instruction from infancy of the danger of

placing miscellaneous articles in the mouth, separation of healthy children from tubercular parents and adults, and last but not least, a pure milk supply.

As Dr. Walker says, there has indeed been an "awakening" all along the line in behalf of the children, and the efforts being made in our cities to inspect the milk, and to provide playgrounds where fresh air and exercise build up their little bodies will go a long way toward preventing this disease.

The child in the country should have a chance, too, and means must be devised to prevent the farmer in rural districts from feeding his own children, and those in the adjacent village, milk from infected cows.

So firm are people in their conviction of the danger of night air that not until the next generation can we expect thousands of people to throw open their doors and windows even in mid-summer and flood their stuffy, musty houses with God's fresh air and sunshine. But, knowledge is being gradually disseminated and every year an increasing number of people realize that it is far better to have the color fade from the carpets than the roses from the cheeks of their children.

I am a firm believer in the efficacy of the indicated Homœopathic remedy in tuberculosis in children. Underlying this disease is a frail constitution, a low vitality, a poor resistance, and unquestionably such constitutional remedies as the *Calcareas*—the *Kalis* or the *Iodides* will do good. The following are some of the remedies with their indications:

Calc. carb.—Nutrition poor, skin pale, white, chalky; movements sluggish, disposition torpid, feeling of coldness, general or in single parts—cold, damp feet; head is large and sweats profusely, fontanelles slow in closing, extremities crooked; sour vomiting, body smells sour, abdomen is distended.

Calc. phos.—Sickly, spare, shrunken anæmic children; diarrhœa with green sputtering stools.

Sulphur.—Stoop-shouldered, lean, filthy children; prone to skin affections. Offensive odor to the body and the discharges. Lips are red and there is sensation of burning and heat about the body, with oppression and faintness.

Silicia.—Emaciated children with large abdomen and lack of growth and development; poor assimilation. Nervous, irritable, over sensitive, faint-hearted children. Sweating of the head and offensive foot sweat. Takes cold easily, especially if head is uncovered. After suppuration when the glands do not heal.

Baryta carb.—Dwarfish children, weak in mind and body, marasmic condition. Offensive sweat of feet and sensitive to changes of weather and to cold about the head like silicia, but no sweat of head.

Calc. iod.—When the enlarged tubercular glands are associated with adenoids, enlarged tonsils filled with little crypts and polypi of the nose. Chronic cough and hectic fever.

Baryta iod.—Children stunted in growth, also enlarged tonsils and strumous ophthalmia.

Tuberculinum.—Takes cold very easily; fresh cold every time he takes a breath of fresh air. Symptoms constantly changing. Otorrhœa, ringworm, dry cough with expectoration of a thick purulent matter.

Iodoform.—Especially in involvement of mesenteric glands, abdomen distended, chronic diarrhœa, accompanied with meningeal symptoms. Head feels heavy as though could not be lifted from pillow; pupils dilated, legs weak, cannot stand.

Iodine.—Ravenous hunger relieved by eating, progressive emaciation, swelling of mesenteric glands, all symptoms worse in warm room.

Surgical treatment is confined almost exclusively to cervical adenitis. However in the mesenteric form when tubercular peritonitis coexists, marked improvement has been known to follow an abdominal incision with cleansing and draining of the cavity. The best of authorities disagree upon the efficacy of removing the cervical glands. Those who advocate it urge complete extirpation of the whole group in which the infected nodes are located. Dr. Charles Dowd, of New York, reports radical operation upon 275 cases. Of these 225 were followed from one to ten years. Recurrence of the disease was observed in 46 patients. Considering that there are invariably inactive foci in other parts of the body it would seem as though improvement of nutrition, care of the mouth and throat, the careful selection of the homœopathic remedy with the addition of Bier's hyperæmic or the light treatment would do just as much for the local lesion, and much more for the general condition of the patient. Some claim very good results from the X-ray treatment. With this I have had no experience, preferring the leucodescent light and daily sun baths.

The Bier treatment is very satisfactory in these cases. The elastic neck band can be worn four or five hours out of every six. Black elastic rubber bands with a button in one end and

holes in the other are used. It should not be tight enough to cause the child any discomfort. When fluctuation appears in the gland, a small incision is made and the pus evacuated. A few hours later the suction cup is applied. This is used daily for a half to three-fourths of an hour, six minutes on and three minutes off. The bandage, of course, has been removed. No packings or injections are necessary. The cup should be large enough to enclose the whole diseased area. The suction is made by the rubber bulb attachment. Children will be interested in using this apparatus themselves. In all forms of glandular suppuration it promotes absorption more rapidly than any other method.

In closing permit me to sound a warning against massage or manipulation of any kind in glandular or any other form of tuberculosis. Rest is the great keynote in the treatment of this disease. Rest of the patient in bed when the disease is general and active; rest of a joint or localized focus, by cast or splint or strap. We admit that a free and active circulation of the lymph in all parts of the body will prevent germs from gaining a foothold and perfect circulation of blood and lymph will hasten its elimination, but when the disease has progressed far enough to produce a mass of nodes in the neck or mesentery, to stiffen and produce tender spots along the spine from the swelling of the retro-peritoneal glands, no amount of manipulating or readjusting of slipped ribs or dislocated vertebræ can eliminate it from the system. Nature itself teaches us better, for when the bacilli enter and lodge in the body, the leucocytes proceed in battle array against them, wall them in and hold them there at *rest*, and we know now that to increase the leucocytosis even by forcing blood into a localized area and slowing the circulation so that the leucocytes may do their duty, is the only way to make any headway upon the disease. Were this not so the race would have been exterminated by tuberculosis.

Mechanical manipulation can only do harm and I have seen as the result of such treatment, safe closed cases to become open dangerous ones; an inactive tubercular cervical adenitis to develop into an acute tubercular peritonitis; tuberculosis of the mesenteric lymph nodes precipitated into an acute general infection, and a hip joint disease dormant for years blazed into an acute miliary tuberculosis. No line of treatment, however simple, is harmless in every condition.

EDITORIAL

THE EFFECT OF THE EARTHQUAKE UPON THE NERVOUS SYSTEMS OF THE RESIDENTS OF SAN FRANCISCO.

A GOOD deal of interest has been manifested by the medical profession throughout the country in the reports emanating from various sources as to the effects of the earthquake and fire in San Francisco upon the nervous systems of the inhabitants of that city. Many of these reports have no doubt been exaggerated and fallacious, and we are pleased to note the publication of a very interesting paper on this subject in "The Journal of the American Institute of Homœopathy," by Dr. H. R. Arndt, of San Francisco. Statements emanating from a man so noted for his excellence of judgment, and who had such unlimited opportunities for observation as Dr. Arndt, can be relied upon as being accurate and authentic, and his paper is valuable both from a historic and from a scientific standpoint. Dr. Arndt describes the first shock of the earthquake in the following words:

"We were rudely awakened from sleep in the early morning hour, and instantly recognized the complete helplessness of our condition. I was absolutely helpless, and in spite of my desperate efforts to get out of bed, was unable to do so. I was tossed about like a rubber ball. The crash of falling pictures, bric-a-brac and of furniture was unceasing, and the grinding and creaking of the timbers of the house in which we lived was simply appalling; my room was darkness itself from the soot which the tottering chimney sent down in clouds. With it all, I truly was not frightened, and yet I have few of the elements of the physical hero in me. I simply felt that for me, and for several thousands of others, the end of all things had come. I experienced not a trace of fear at the time, and realized the perfect uselessness of seeking escape. Only once when the frightful movements of the earth, after an instant's weakening, redoubled in greater violence than ever was I conscious of fear that lasted for but an instant. When the frightful forty-eight

seconds had passed, and they seemed to cover a lifetime, I assured myself of the safety of my wife in the adjoining room, and then proceeded to dress without either desire or ability to exercise great haste. . . .

"When a second and severe shock occurred soon after seven o'clock, I felt a great pity for frightened and hysterical women and children, but no concern for myself. I saw the troops start from the foot of Van Ness avenue, and it required some effort on my part to understand the purpose of their movement down town. The fire was then spreading rapidly, and I was assured that the buildings in which my offices were had been partially destroyed by the earthquake, and was then being gutted by the fire. I did not worry. The most appalling sights appeared like matters of course. When even in the days and nights following we were lying in the open air, the sea ahead of us, the sea on each side of us, and an ocean of fire back of us, with hardly a drop of water to drink, no food assured for the next meal, with absolutely nothing to hope for in the way of relief, I was more unconcerned than I perhaps have ever been in my life. I speak of my own experience because it was nearest to me, but it was the counterpart of the experience of nearly everybody else, save as in some an hysterical state appeared to prevail."

From this very lucid and graphic description by Dr. Arndt we are able to understand what a severe shock the earthquake itself and the events following it must have been to persons of an emotional or neurotic temperament, and it affords an unusual opportunity for investigating the effects of such shock upon the nervous systems of the persons who passed through it. A study of the number of cases admitted to the insane asylums of the state of California show that comparatively few cases of insanity can be traced to the effects of the earthquake. A number of patients who presented a marked predisposition to insanity prior to the occurrence of the catastrophe seemed to have been markedly aggravated by the shock, but the consensus of opinion of the members of the Commission in Lunacy, through whose office all admissions to the asylums are made, is that in almost every case the catastrophe only acted as the exciting cause. Dr. John W. Robertson, a man of much experience, Dr. Arndt states, denies that there was any increase of insanity as the result of the earthquake.

On the other hand, it appears that neurasthenia and similar minor affections of the nervous system have been markedly in-

creased since the catastrophe. Dr. Arndt is of the opinion, however, that while this increase of neurasthenics is partially due to the shock of the earthquake itself, it is chiefly the result of the unaccustomed physical and mental exertion, loss of property and friends; and the stress of business affairs that followed the destruction of the city. An increase in suicide was also noted, especially among chronic alcoholics.

We are also much interested in noting what Dr. Arndt has to say in regard to the marvelous cures of confirmed invalids that have been reported from time to time as a result of the earthquake. His investigations show that in many instances sudden and complete relief was had from long-standing complaints; in fact, he observes:

"It was a matter of common observation during the first few months of our rehabilitation that all felt in every way stronger than they had for years; ate heartily and slept better; worked harder, and felt no fatigue from it."

It seemed definitely proved that many persons suffering from hysterical weakness of the limbs, and other similar functional neuroses, were completely and promptly cured in the excitement of the hour, but there is no authentic case in which anything like a cure was observed when an actual organic disease existed.

G. H. W.

SENATE BILL, NO. 44.

This Bill, which was introduced into the Senate of the State of Pennsylvania by Mr. Tustin, on the Eighth of February last, marks a new epoch in medical legislature; for it departs from the unsatisfactory and defective make-shifts of the past, and strikes directly at the root of the evil.

We all recognize that the only excuse for the existence of Medical Examining Boards resides in the fact that some medical colleges are either giving inadequate training, or they are careless or unduly sympathetic in their final certification, or both.

If all the medical colleges maintained a sufficiently high standard, and based graduation upon the rigid compliance with

those standards, the need of further post-graduate test for admission to the practice of medicine would be eliminated.

And that is just what the Tustin Bill proposes shall be done in the State of Pennsylvania, make the medical college do what it was chartered to do, or get out of business.

The Act provides for the establishment of a "State Department of Medical Education and Licensure," to be composed of nine members, to be appointed by the Governor "from the full lists of the members of the legally incorporated State Medical Societies of the State of Pennsylvania, provided that at no time shall a majority of the said members represent any one school of medicine or system of medical practice."

The Department has the power and duty of determining the minimum preliminary and preparatory educational requirements for entrance upon the collegiate course; but does not at present disturb the standard of the equal to a four years' high school course.

Instead of the rather vague standard of the "Wolf" Bill, that calls for a thirty weeks' course, this measure makes the very definite minimum that the "requirements shall be the same for each of the medical colleges within the Commonwealth, provided that said course in medicine shall embrace not less than four thousand five hundred hours of actual work in didactic, laboratory and clinical studies, including anatomy, normal and morbid histology, physiology, chemistry, sanitation and hygiene, general and special pathology, bacteriology, practice of medicine, materia medica, toxicology, surgery, obstetrics, gynaecology, and medical jurisprudence."

Failure of a medical college to conform to the authorized standard will result in rendering its graduates ineligible for licensure in this commonwealth.

Provision is made for the inspection of medical colleges and for exact information as to the extent of the curriculum, methods of conducting examination, facilities, etc.

The members of the Department act in the further capacity as the Examining Board before which must appear unlicensed graduates of medical colleges of other States and Countries; but graduates from an accredited medical college within the State will have the right to practice any where within the State by virtue of that graduation, and the license from the Department is issued to them without any further post-graduate tests.

Reciprocity is provided for to those that furnish "satisfactory proof that the educational standard adopted by the said Board, and in force at the time of issuance of said license was substantially the same as the preliminary, preparatory, and medical requirements in this Act."

The members of the Department receive their travelling expenses, and twenty-five dollars per diem while engaged in official duties, not exceeding forty days in any one year.

The Act is just what it pretends to be, an Act to regulate the practice of Medicine; it exempts "Osteopaths," directly, and not as the "Wolf" Bill by implication; but holds to account all cults that treat the sick for the enforcement of quarantine regulations.

In the formulation of this Bill the highest credit should be given to that veteran Homœopathist, Dr. Augustus Korndoerfer, for no single individual has devoted to it the amount of labor and thought that he has; but the Bill does more than reflect and embody an individual opinion, it expresses the attitude of our School of Medicine in this State towards the problem of Medical Education and Licensure.

The Bill asks for no special concession for any School, it simply asks for fair play for all.

It raises the standard of medical education, while the "Wolf" Bill contains serious possibilities of lowering it.

It makes a diploma from a medical college, not merely an ornamental certificate, but accepted upon its face value any where within the Commonwealth.

It establishes a precedent that will be stimulating to all worthy medical colleges, and destructive to the unworthy.

Its whole concept rests upon scholarship and attainments, rather than upon precedent and unsatisfactory tests.

It ensures the fact that the State shall afford the same safe guards, supervision, and control of the matter of medical education, that it now assumes over much less important affairs.

It goes to the source, where other measures have only dealt with the end products.

The Old School have recently substituted for the "Wolf" bill another medical Act, in which they abandon the principle of the Medical Examining Board, and accept the principle of the regulation of the Medical College.

The Bill appropriated bodily many of the good features of our own, and in that it is to be commended; but unfortunately

it is burdened with many of the defects of the "Wolf" Bill, to which it has added a few new ones, so that it would, if passed render the execution of the work impractical, and create a number of possible complications that are appalling.

Under the circumstances there is nothing to do but stick to our guns.

D. P. MADDUX, M. D.

APPENDIX DYSPEPSIA.

ALMOST every medical practitioner has noticed that many patients suffering from a chronic inflammation of the appendix are subject more or less constantly to symptoms of gastro-intestinal indigestion. Abdominal surgeons have had an excellent opportunity during recent years for noting the effects of chronic appendicitis on the gastro-intestinal canal, and their observations seem to indicate that a diseased appendix may be the cause not only of symptoms suggestive of functional disturbances in the stomach and intestines, but also may produce symptoms closely resembling those of gastric and duodenal ulcer. Moynihan, who has given considerable attention to this subject states that there are two types of dyspepsia for which a diseased appendix may be responsible. The first of these is that type in which the symptoms simulate those of gastric and duodenal ulcer, even to the extent of producing hematemesis. He notes, however, that the following difference is observed, namely, that the symptoms instead of being methodical, as they are in cases of gastric and duodenal ulcer, are variable. So strongly is he convinced of the frequent relationship between an inflamed appendix and the group of symptoms above referred to, that he lays down the principle that no operation for supposed gastric or duodenal ulcer is complete until an examination has been made of the appendix, small intestine and mesentery glands.

A number of theories have been advanced in order to explain the occurrence of this group of symptoms as a result of an inflammation of the appendix. To our minds the most rational, however, is that the mimicry of the symptoms of gastric ulcer are due to an exaggerated action of the pylorus probably induced by an excessive acidity of the gastric contents.

The second group of dyspeptic cases of appendicial origin exhibit symptoms of a more general nature, such as discomfort after food, the presence of an excessive amount of gas, and occasional attacks of abdominal pain with diarrhoea. A number of these cases have come under our observation, and it is a source of considerable discouragement to both the physician and the patient to note how obstinately the dyspeptic symptoms persist until the inflamed appendix is removed.

With due allowance made for the tendency of the abdominal surgeon to overestimate the importance of his particular field of work, there can be no question but that the removal of a chronically diseased appendix is frequently followed by a complete relief of the dyspeptic symptoms and by improvement in the nutrition and in the general physical condition of the patient.

G. H. W.

COMBINED EXTERNAL AND VAGINAL VERSION.—Stowe (Chicago) says: The combined external and vaginal version is not dependent upon the size of the cervix nor the degree of its effacement. The less the cervix is dilated, the easier is the operation in most cases, provided the membranes are intact. Owing to certain conditions of the abdominal wall and uterus, it is often impossible to correct a malpresentation during the later weeks of pregnancy by external methods alone. A preliminary dilatation of the perineum in primiparae and the version itself do not tend to terminate the pregnancy. But little difficulty was experienced in maintaining the fetus in its new position. In no case was a repetition of the maneuver necessary. Danger of premature separation of the placenta during pregnancy is very slight. In no instance was there a perceptible change in the heart tones before and after the operation. The proper presentation of the fetus should be determined before labor begins. The question as to whether the head or breech is to present depends upon the conditions present. The operation is much easier of performance before the membranes have ruptured. If the liquor amnii escapes during the first stage, the version should be done immediately, as otherwise the uterine walls may so contract about the fetal body in a short time that internal version is impossible and the child is lost. The danger of premature separation of the placenta depends upon the degree of uterine retraction and the amount of liquor amnii in utero. The danger of septic infection is reduced to a minimum as the hand does not enter the uterus. In certain cases of placenta prævia, the foot can be brought down in the inlet before the membranes are ruptured. It is easier to secure a foot than in the classical Braxton-Hicks version.—*Amer. Jr. Obs.*, Vol. 62, 657.

GLEANINGS

RELATIONSHIP BETWEEN ULCER AND CANCER OF THE STOMACH.—Until comparatively recently we knew only that cancer occasionally developed on the base of an ulcer of the stomach. It has remained for the Mayos, Moynihan, Rodman and other surgeons of large experience to show that between 40 per cent. and 70 per cent. of their gastric carcinomata operated upon showed signs of having developed upon the base of a previous existing ulcer. Again it is claimed that a considerable number of resected ulcers show indications of beginning malignancy.

Wilson and Willis from Mayo's clinic have presented their theory of epithelial segregation in these cases. In other words, they claim that whatever may be the essential irritant there is microscopical evidence backing up clinical evidence that a high percentage of cases of carcinoma have developed on epithelial cells which have previously been isolated from normal surroundings, either by the formation of diverticula or by scar tissue in ulcer bases.

They have supported this view with considerable evidence gained from microscopic investigations, utilizing the very large amount of material from the Rochester clinic.

While the surgeon feels that the occurrence of cancer following ulcer is a common happening and therefore advocates operative treatment more frequently than the medical man. The stomach specialist does not as a rule share his views. Dr. Einhorn, from his large experience states that quite contrary to being of the above opinion he believes that the presence of an ulcer is in a way opposed to the development of cancer. He considers that probably less than 1 per cent. of ulcers of the stomach are followed by death from malignancy.

Stockton remarks that we sometimes find cancer growing on the seat of a chronic ulcer of the stomach, but not as frequently as is supposed by some. He has observed many recurrent ulcers for years which did not develop into cancer. He is opposed to the intervention of surgery in gastric ulcer, unless there is definite indication then present.

Neither is the microscopic evidence of epithelial segregation accepted by many as a proof of a tendency to malignancy. Well, with a considerable show of reason, contends that the presence of the granulation tissue in healing, carries with it a tendency to atypical epithelial proliferation and certainly it is not surprising that some of the collections of cells should be cut off by the scar tissue with probably no malignant change following. Dr. Jacob takes a most sane view of the question, standing midway between the others and explaining some of the discrepancies. He says that the surgeon and medical man take their statistics from different sources. The surgeon's statistics are correct from his standpoint, but are only collected from a certain class of perhaps the worst cases. Dr. Jacob states that perhaps 3 per cent. of cases of cancer of the pylorus are on the scar result-

ing from an old ulcer and again that ulcers recover in large numbers with no tendency to malignancy.—*Charlotte Med. Journal*.

SYPHILLIS, "606."—Certain of the arsenical compounds, including "606," by killing some of the spirochetæ present in the organism, cause the production of antibodies which destroy the remainder. The best curative results are, naturally, obtained when the disease is at its height, when the body is saturated, so to speak, with the specific organisms, since the formation of anti-bodies may play even a greater part in causing their complete dissolution than the direct destruction of a few. In his experiences with the new remedy in 80 cases, the author found that a much larger dose was required to heal an early chancre than to cure completely a case of extensive gummatous ulceration, for instance, in a congenital syphilitic; therefore, he feels justified in assuming that the cure is largely due to the amount of antitoxin formed. If a mother, after giving birth to a syphilitic infant, be injected with "606," all the syphilitic manifestations disappear within a week after it is put to the mother's breast. The improvement is not due to the amount of arsenic the child receives, since none is found in the milk; it must, therefore, be due to the antitoxin produced in the mother by the death of her spirochetæ, and which is conveyed to the child by the milk. This is of much importance, since the risk of death in an infant injected with the smallest possible dose of "606" is enormous, owing to the amount of endotoxin formed. We do not yet know whether the cure obtained in a child in this way is permanent, and Ehrlich's advice at present is to give the child an injection later, when it is in a healthier condition.

The remedy should be injected preferably under the trapezius muscle, on a line with the spine of the scapula and midway between the scapula and the vertebral column. Injections into the glutei necessitate recumbency, and, since the pain is often worse in this position than when standing up, patients begin to walk about the room on the second and third day, when suddenly they are seized with severe sciatica which may keep them bed-ridden for as long as three weeks, probably due to gravitation of the injection mass downward on to the sciatic nerve. Injecting into the shoulder one is below the brachial plexus, so there is no radiating pain down the arm, and only a very occasional shooting pain down the back and up to the head. Emphysematous patients, however, should always be injected in the glutei, as otherwise difficulty in breathing may arise, owing to spasm of the intercostal muscles on the side injected. The emulsion employed by the author is not more than six cubic centimeters in bulk.

As a prophylactic the drug is powerless, since its constituents are not broken up unless acted upon by the protozoa. In early cases of syphilis where a chancre alone was present, no secondary symptoms ever developed. In the secondary stage it is the rule for all symptoms to disappear after a single injection of from 0.5 to 0.6 Gm. Very rarely the rash is temporarily increased in severity. The interpretation of this is that the dose given was too small, and the cases reported did not receive more than 0.3 Gm. In a case of malignant syphilis with added pulmonary tuberculosis, the cough subsided, night sweats ceased, and physical signs diminished after an injection of "606." In another case the small recurrent papular syphilide

(lichen syphiliticus), perhaps the most resistant syphilide to mercurial treatment, disappeared in a short time.

The writer lays stress on a group of subjective phenomena which the patient usually does not complain of, but the disappearance of which he calls one's first attention to after the injection, viz.: precordial pain and heaviness, palpitations, cardiac irregularity—in short, a pseudoangina, probably dependent upon an endarteritis of the small vessels. So constant are these symptoms that they should prove of diagnostic value.

The risk of optic atrophy from "606" need scarcely be seriously considered, since no case of amaurosis is on record, and the writer injected one case of bilateral optic neuritis without atrophy ensuing, one case of unilateral optic neuritis, caused by soamin injections, two cases of syphilitic choroiditis, and two cases of syphilitic iritis which healed after a single injection. In parasyphilitic affections the drug will not often be indicated, since both tabes and general paresis are usually too far advanced before treatment is started. If a case is obtained early the result of treatment is really marvellous, as shown in one of the author's cases, in which such symptoms as diminished knee-jerks, sluggish pupils and slight ataxia were caused to disappear. Three cases of tabes with marked ataxia did not improve under the injection, but foreign reports state that lightning pains disappear under the drug's influence.

Where syphilis is complicated with tubercle, as is almost invariably the case in the malignant form, the injection acts beneficially upon the tuberculous lesions. Secondary infection with streptococci and staphylococci is often cured, along with the syphilitic processes it complicates. On the other hand, the injection does not confer immunity to either variety of coccal infection, since one case developed erysipelas a fortnight after injection, and two or three were subsequently troubled with furunculosis. On gonorrhœa concurrent with syphilis, the injections had no effect either for better or worse.

An emphysematous, plethoric man of 50 developed pleurisy on the side of the injection on the second day. In two cases only did the injection cause a rash. Two cases have recurred; it is probable that in both the initial dose, 0.4 Gm., was too small.—McDonagh in the *London Lancet*.

THE ACTION OF APOCYNUM.—Drs. Dale and Laidlaw (in *The London Hospital Magazine*) have investigated the action of this drug, and their account of it is published in *Heart*. The active principle recently isolated from Apocynum cannabinum by Finnmere exhibits properties identical with those of the substance obtained from Apocynum androsaemifolium by Moore. These are named respectively Cynotoxin and Apocymarin. Crystalline apocynin has but the feeblest physiological action when pure. The diuretic action of apocynum has earned for it in America the name of the "vegetable trocar." The action is in all respects a characteristic digitalis effect. The doctors have not yet determined accurately the exact position of the drug in the digitalis series, but they find its vaso-constrictor action is considerably more powerful than that of strophantin; its action on the heart is slightly weaker than that of the latter. On the other hand, it is excreted or destroyed with comparative rapidity, and there is experimental basis for the statement that apocynum is not cumula-

tive in its action. The question whether it is excreted or destroyed within the body remains open for the present. It is thought that the employment of the pure active principle should eliminate the drawbacks which have hitherto restricted the use of this drug, for these are probably due to the presence of other constituents of an irritant nature in the crude extracts. The rapidity with which cynotoxin acts enjoins caution with respect to subcutaneous dosage: it is not suggested what the latter should be.

THE USE OF A MASS OF FATTY TISSUE AS A STUMP IN OCULAR PROTHESIS.

—The following method is described: A circumcorneal conjunctival incision is made and the conjunctiva completely undermined. A catgut suture is passed through the tendon of each rectus muscle before the latter is severed. These sutures are reflected out of the wound, and the eyeball removed in the usual manner. A mass of fat about the size of a walnut is excised from the patient's abdomen or gluteal region. The orbital hemorrhage is controlled by pressure, the excised fat is placed in the capsule, and four sutures tied over it, uniting the recti muscles in the form of a cross. Tenon's capsule is then sutured with fine catgut and close stitches, the conjunction is sutured with silk, and the usual dressing applied without pressure. The conjunctival suture may be removed within a week, and a shell eye fitted three weeks later. The advantages claimed for this operation are a more prominent stump and increased mobility of the prosthesis.—Dr. A. E. Ibershoff, *Ophthalmic Record*.

WILLIAM SPENCER, M. D.

SKIN DISINFECTION WITH TINCTURE OF IODINE BEFORE OPERATIONS ON THE EYE.—In 1908, A. Grossich simply brushed the unwashed skin with tincture of iodine, and repeated the process when the operation was finished; wounds treated in this way healed by first intention. He also applied this method to accidental wounds, with a like happy result. He has now given up bandaging, and brushes the skin sutures daily with the tincture until the cicatrix is formed. Eczema may rarely follow the application of the iodine, especially when it is made to such parts as the scrotum, perineum, face and neck. By Koenig it is supposed that the skin is hardened by the alcohol contained in the tincture, so that the bacteria are fixed, while their further development is hindered by the iodine of the preparation. Segelken has performed seventy-eight operations upon the eyes in which he disinfected the skin of the eyelids by means of common tincture of iodine. His list included cataract, enucleation, extirpation of the lacrymal sac, iridectomy, tenotomy, symblepharon, plastic operation on the conjunctiva, and so forth. In addition to these, the tincture was applied in five cases of recent sclero-corneal wound, and in one case of dissection to the point of puncture on the scleral conjunctiva. No disturbance took place during the healing of the wounds. No complications were observed, except a passing edema or erythema of the skin of the eyelids in predisposed patients. He brushes the skin with iodine once only, and in his last ten cases he contented himself with diluted tincture of iodine (5 per cent.) Segelken concludes that "we have in the tincture of iodine an agent which in eye operations simplifies disinfection greatly and evidently perfects it."—*The Jour. of Ophthal., Otol. and Laryngal*.

WILLIAM SPENCER, M. D.

LOSS OF AN EYE FROM BLOWING THE NOSE ROUGHLY.—A healthy man, aged 22, suddenly lost the sight of his right eye after prolonged and violent blowing of the nose. When first seen, 24 hours after the loss of sight, he had no perception of light and the fundus presented the appearance resembling that seen in embolism of the central artery of the retina, except that the arteries were only narrowed instead of filiform. There was also a small hemorrhage on the disc. Two days later he could count fingers at 22 c. m., but had a central scotoma and contraction of the upper part of the field to 25 degrees. In six weeks the edema had cleared off, leaving a slight veil through which the choroid was seen, but the disc was paler than formerly; the scotoma had gone but the vision was only 1-10, and the contraction in the upper field still remained. Tacke suggests that this was a case in which there was a sphenoidal sinus separated from the optic foramen by a thin wall only which yielded to the pressure from the forcible blowing of the nose, causing a bruising of the optic nerve with hemorrhage from some of the fine vessels in its interior, and complete blindness from compression, which cleared off when filtration of the blood in the fibrillar interstitial tissue took place, leaving a defect in the upper part of the field owing to collection of the blood in the lower part of the nerve. The central vision did not return until later because the central or macular fibres were the most affected, and the permanent diminution of vision was due to pathological changes.—*Annals d'Oculistique*.

WILLIAM SPENCER, M. D.

A CASE OF GUNSHOT WOUND IN THE TEMPORAL REGION WITH PARALYSIS OF THE SYMPATHETIC.—A case of gunshot wound in the right temporal region, followed by partial, transitory paralysis of the first trigeminal branch and abducens, and complete paralysis of the trochlear and sympathetic nerves. X-ray located the bullet in the lateral side of the lower root of the small wing of the sphenoid, the structures in this region being those subsequently traversing the superior orbital fissure. For some reason, however, only the fourth, sixth and first branches of the fifth nerve were injured. The sympathetic paralysis probably resulted from a lesion of the sympathetic fibres which join the fifth nerve to the distal side of the Gasserian ganglion, most of the sympathetic fibres taking this course. In all previously reported cases of gunshot wounds of the sympathetic, the wound of entrance was in the cervical region.—Dr. R. Cordo, Leipzig, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

EHRlich-HATA 606 IN OPHTHALMOLOGY.—A review is given of the methods of using 606, with the results of various authorities, and especially what has been done in the domain of Ophthalmology. He attributes the small percentage of ophthalmic cases to be due to caution on account of some of the horrible results of other arsenical compounds, especially atoxyl. Among the cases which he has collected up to date on which 606 has been used are the following:

1. Four cases by Neisser. (a) Brain lues, six months after infection, with choked disk, eye muscle paralysis and severe headaches; which was relieved completely and rapidly of all symptoms after injection of 0.2 of

606, when K. I. and Hg. had had no effect. (b) Three cases of interstitial keratitis without results.

2. Six cases by Wechselsmann. (a) Optic neuritis, which had resisted the influence of Hg., rapidly cured with 606, with normal vision restored. (b) Five other cases with abnormal optic nerves without 606 producing any harmful results.

3. Two cases by Treupel. (a) Syphilitic keratovitis with positive Wassermann; cured eight weeks after injection of 606. Three months later returned, with slow healing after a second injection. (b) Paralysis of the left side, with ptosis and paresis of left internal and external recti following apoplectic attack. Showed rapid improvement after injection of 0.3 of 606 with slight paresis of recti and slight ptosis remaining.

4. Four cases of Gluck. (a) Interstitial keratitis which had been under treatment for one year with Hg., showed rapid clearing immediately, but three weeks later were still hazy. (b) Very severe iritis with synechia. Photophobia disappeared two days after injection of 0.4 of 606 with complete cure in four days, with the exception of the synechia, which had disappeared eight days later under atropin. (c) Double iritis cured three weeks after injection. (d) Optic atrophy. No result.

5. Dörr. One case of diplopia cured in three weeks.

6. Two cases by Hoffman. (a) Exophthalmos and abducens paralysis in hereditary syphilis rapidly cured after injection of 606. (b) Tertiary iridocyclitis and hyalitis. No results given after the treatment.

7. One case by Igersheimer. Interstitial keratitis, negative results.

8. Ehrlich. Excellent result in retinitis syphilitica and iritis-gummosa.

9. Axenfeld. Rapid recovery in a case of iris-gumma. He deprecated the fact that ophthalmologists have not been giving 606 for a special trial in eye cases, and also that the preparation is not yet on the market. He states that Ehrlich is still working to improve the preparation, and has already discovered "Hyperidial," which is called Hy. for short. Its poisonous effect is said to be one-third that of 606.—Dr. Stucep, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

METHOD OF DECOLORIZING THE CONJUNCTIVA IN ARGYROSIS.—The method consists in injection into the conjunctiva of potassium iodide in saturated, half saturated, or 30 per cent. solutions, the strength depending on the reaction following each treatment. With the smallest needle of an ordinary hypodermic syringe and a broadsided forceps, a puncture of some portion of the stained area is made and the needle is passed superficially 8 m. m. or more into the substance of the conjunctiva, care being taken to keep parallel and as near the surface as possible. Three or four minims of the solution are injected very slowly. If the discolored area is extensive and the reaction is slight, the injection may be repeated at a point as far removed as possible from the first. When all irritation has subsided, which usually requires from two to three weeks, the injection may be repeated at other points, until the stained area has been well traversed. The effect of the potassium iodide as far as decolorization is concerned is progressive and slow, but certain, producing an almost normal color in the conjunctiva.—Dr. L. E. Schwartz, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

VOMITING OF PREGNANCY TREATED WITH THYROIDIN.—Siegmond has reported five cases in which a favorable result was rapidly obtained from the administration of thyroidin. The details of the cases are given but need not be repeated. He says the rules for giving the preparation, which the author endorses, were originated by Fliess. Just as quinine is administered in malarial fever some hours before the chill, so thyroidin must also be given some hours before the time of the worst vomiting spells, and in order that it may act effectively at a time when the stomach is empty. Therefore it should be given at 4.30 or 5 A. M. in bed, the patient being awakened for the purpose. She may then sleep some hours longer and take breakfast in bed. At 9 A. M. the dose is repeated, and again a half hour before the noon and evening meals; and again on retiring. The morning dose should be large, not under 5 grains, even 7 to 10 grains. If the patient vomits at certain other times than in the morning, she should take a dose a few hours before that time. The physician must take the trouble to determine the size of the dose and the time of its administration according to daily observation. The powder acts better than the tablets. The glycerine extract has also been used. Liquid diet in moderate amounts is advisable. Meat and fat must be introduced at first. Thyroidin treatment is not dangerous.—*Zentralbl. f. Gyn.* 1910, 1349.

THEODORE J. GRAMM, M. D.

THYROIDIN IN AGALACTEA.—Siegmond says that thyroidin will more favorably influence deficient secretion of milk than any other remedy. This was first suggested by Hertoghe. The author believes the time to begin the treatment for deficient milk is early in pregnancy, at a time therefore, in which the mammary glands are transformed from their resting state to one of functional activity. Two successful cases are reported. He gave $1\frac{1}{2}$ grains of thyroidin, once, twice, three times daily from the third month of pregnancy onward. The health of the patients improved materially, and when lactation was established the flow of milk was abundant. Both in these cases and in those treated for vomiting of pregnancy the thyroid extract used was obtained from female animals.—*Zentralbl. f. Gyn.* 1910, 1391.

THEODORE J. GRAMM, M. D.

THE ACTION OF IODINE IN HAND DISINFECTION.—The use of iodine upon the skin before operation as proposed by Grosslich, which has been so widely adopted, was examined bacteriologically by Kutscher (Berlin). The result was that neither anthrax spores nor growing bacteria, placed upon the skin were destroyed. Dried silk threads, impregnated with staphylococci and pyocyanus remained infectious even after sixty minutes' immersion in iodine tincture. The small value of alcoholic solution of iodine was formerly demonstrated by Robert Koch. The excellent clinical results of the method of Grosslich are explained by the author as depending entirely upon the desiccating and hardening properties of the iodine and of the alcohol, which hinder the giving off of germs from the skin. A previous thorough mechanical cleansing of the skin with iodine-benzine or with alcohol-acetone mixtures must never be omitted. Otherwise one could encounter serious results if virulent germs are present upon the skin.—*Abstr. Zentralbl. f. Gyn.* 1910, 1373.

THEODORE J. GRAMM, M. D.

RETROVERSION OF THE UTERUS.—In concluding a comprehensive article reviewing the experiences in the treatment of retroversion of the uterus at Schauta's clinic in Vienna, Adler says: Retroversion per se is not treated but only the symptoms occasioned by it. Therefore they do not try to replace every retroverted uterus, but only do this when the patient complains of symptoms referable to the displacement. Irregular hemorrhages or profuse menstrual discharges cannot be regarded as alone dependent upon the changed position of the uterus. Even in the first months of pregnancy if no symptoms exist the uterus is only replaced if the patient cannot be kept under observation. If a displacement seems to occasion symptoms, the case is examined as to the movability of the uterus. If freely movable an attempt is made to retain it in position by means of a pessary used for a short time. The pessary, however, is only a palliative measure, and its use is not advocated for a great length of time. On the other hand, at this clinic they are not inclined too freely to advise operation, as is proven by their records. So that before advising operation, they often treat cases with the pessary in order to determine whether the symptoms really depend upon the displacement. If this is shown to be the case, the operation is advised. If this is refused, the case may still be treated with the pessary. Since the long continued use of the pessary is not advised at this clinic, it is not used in cases of perineal laceration, prolapse, hypertrophy of the cervix, etc., which in themselves call for operation. The operation of choice in such cases is vagino-fixation when the uterus is freely movable and in the absence of complications within the uterus or laterally, and of hemorrhages which point to changes in the adnexa. In studying the results recorded in the article itself it seems somewhat surprising that vagino-fixation is advised at all, since failures from this operation are so often mentioned. In cases of fixed retroversion conservative measures are used, such as rest, antiphlogistic treatment and massage if not contraindicated. If these suffice, the position is not corrected, since the removal of symptoms is regarded as the end to be attained by treatment. If this conservative therapy fails or cannot be carried out, the operation is advocated. The social position of the patient has somewhat to do with the indication for operation, since in women who must perform laborious work operation is called for more urgently than in those so placed in life that they can give themselves the necessary care. Breaking up adhesions during narcosis is regarded as dangerous from hemorrhage for instance, and as ineffectual because adhesions are apt to form again. When the abdominal operation is performed, the method of Doleris is usually selected.—*Monatssch. f. G. u. G.*, Vol. 32, 298.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

PRACTICAL POINTERS.—If you have never done so just follow Dr. Hawke's "hobby" with chronic malaria cases and give a few doses of *Natrum mur.* Not too "low," say 30th or 200th. It won't hurt the patient and it may do what the heavy artillery of scientific medicine has failed to do—dislodge the enemy, or, in simple terms, cure. It is called a "hobby" by some, but it is really the action of higher medical science.

"Hands hot and feet cold," *Sepia*.

Dr. B. C. Gordon (*El. Therap.*) reports exceedingly gratifying results in treatment and prevention of small-pox with *Variolinum* 30. It aborted the disease in three members of a family and seemingly prevented it in two other unvaccinated members of the same family. Dr. Gordon thinks it more effective and safer than cow-pox virus.

Dr. W. P. Barron finds in *Cactus grand.* a good remedy in the crisis of pneumonia. He gives the tincture two or three drops.—E. T.

Dr. W. L. Birney finds *Santonine* the sure remedy for retention of urine in newborn infants.—E. T.

Dr. W. L. Marriott (*Hom. World*) reports a case of chilblain, worse in a warm room, beautifully relieved with *Pulsatilla*; also a case of "neuralgia in the teeth" worse in warm room relieved by the same remedy.

Writing of *Nitric acid* Dr. J. E. Inskeep (*El. Ther. Jour.*), says: "If the tongue has a violet color, showing over red, the remedy will cure whooping cough as it would cure ague, or any other curable disease, with the same symptoms." He has verified this many times.

We were told of a case the other day of a woman who had neuralgia so bad and so long that her "regular" doctor said an operation must be performed. A homœopath gave her some *Spigelia* o and the pain left her—and has remained away.

Jones' *Bee-Line Repertory* contains more "straight tips" on remedies than any other book ever published.—August *Homœopathic Recorder*.

CALCIUM SULPHIDE.—I wish to call the attention of readers of this journal especially to calcium sulphide. This remedy has won high repute in France and Italy in the treatment of various infections. It first came into prominence when recommended by Dr. Fontaine as the remedy for malignant diphtheria. He introduced the practice commonly known as saturation: From 1-6 to 1 grain of chemically pure calcium sulphide is administered every one or two hours, until the patient's perspiration exhales the odor of sulphuretted hydrogen. It is wise to omit the administration of the remedy during the period of acid digestion, as hydrochloric acid decomposes the sulphide and unpleasant eructation of sulphuretted hydrogen follows.

Used in this manner the remedy is harmless. Upwards of 50 grains in

twenty-four hours has been administered by the writer without any unpleasant symptoms ensuing. Heretofore calcium sulphide has been held somewhat in dread, because of the toxic manifestations following inhalations of sulphuretted hydrogen as a gas. When thus inhaled it unites with the hemoglobin of the blood, forming a hemoglobin which is peculiarly obstinate and difficult of decomposition. No such effect follows, however, if the remedy is administered by the stomach.

Those who have given calcium sulphide the most extensive trial, seem to be especially enthusiastic concerning it. It is said that persons saturated with this drug in the manner above described are immune against the bites of every species of insect, including the fly, flea, bed-bug, jigger, mosquito, tick, louse, etc.

Experiments made with infected yellow fever mosquitos showed that some individuals were immune, because the mosquitos could not be induced to bite them, whereas they voraciously attacked other individuals at the same time. No cause was assigned for this preference. It is claimed that probably the immune persons exhaled sulphuretted hydrogen, which although not manifested to other human beings was sufficient to deter the mosquito. The matter is one of considerable importance, as it furnishes a ready means for the physician to go scatheless into the midst of any epidemic which is transmitted by insects, and it seems that we are drifting to the realization that insects are responsible for infectious diseases in general.

The theory is novel and attractive.—William Waugh, M. D., in *Denver Medical Times*.

ZONA (HERPES ZOSTER, SHINGLES). HOMOEOPATHIC REMEDIES.—For the *internal treatment* we count upon four drugs capable of meeting the rash, the pain and the chief concomitant symptoms observed in the affection. These drugs are *Arsenicum*, *Rhus tox.*, *Croton tig.*, and *Cantharides*.

Even the old school admits that during the administration of *Arsenicum* as a remedy the development of *zona* is frequently observed. We all know that *Arsenicum* covers well the *vesicular burning*, the *nocturnal pains* and the *anxiety and restlessness* observed during the course of this affection, but there are not many who know that only *Arsenicum* is capable of producing the pathognomonic rash of *zona*. So the leading symptoms of this valuable drug are: The *vesicular rash*, the *intense burning pain*, the *irritability of tissue*, and the *nocturnal aggravation*.

Rhus tox. is another remedy which covers well both the *rash* and the *neuralgia*. The *herpetic rash* is attended by increased *burning and tingling*, especially in the *intercostal variety*, and it is further indicated when the pains are relieved by continued motion and increased by lying in bed. Also worse in cold weather. Even when the rash becomes *bulbous* we may find *Rhus* well indicated. This remedy was curative in my hands in a case of *supraorbital neuralgia* followed by the rash.

Croton tiglium is a very much neglected remedy. It certainly produces a *vesicular eruption, developed on an erythematous base*, with burning and stinging; and few remedies can surpass it, when there is *persistent pruritus* attending the *zona*, or when the *vesicular contents become sero-purulent*. It has been recommended for *facial zona*.

Cantharis produces also *groups of large, burning vesicles on an erythema-*

tous base. It is particularly indicated when the parts burn before the vesicles appear, or when by coalescence the vesicles become *large, shallow blebs*, the contents of which may be serous, purulent, or hemorrhagic. There is besides *ulcerative pain* when touched, and some claim that the *eruption* develops chiefly on the *right side* and is attended by *smarting* and *stinging* (*Apis*). It should be studied when owing to extrinsic circumstances the *lesions become gangrenous* and healing is protracted.

Apis mel. is hardly recommended by our writers, and yet this remedy produces and cures *groups of large vesicles*, attended with *burning, smarting* and *stinging*, and extreme sensitiveness to the slightest touch. The chest and abdomen are seats of preference, and the pains are worse from warmth and better from cold applications (opposite to *Arsenic*). It is indicated even late when dry, scaly, laminated, brownish scabs are formed (*Mezer*).

Ranunculus bulb. is highly extolled by Farrington. In this remedy the *burning-itching vesicles appear in clusters*, and the *sharp stitching pains*, after both supra-orbital and intercostal herpes, are important *neuralgic sequels*. According to Kippax it is indicated when *zoster* is aggravated by change of temperature, and especially in *rheumatic subjects*. It is also worse from touch or motion or after eating.

Mezereum is essentially a remedy for the *severe, neuralgic pain following the disappearance of the rash*, particularly in the aged. *Burning* usually attends the neuralgia after *zona*. In acute cases of *facial zona*, the itching is internal and worse in bed. According to Douglas, in *scrofulous persons*, the *burning changes location after scratching*, and is the chief remedy in *zoster in old people*.

Graphites is indicated in *herpes zoster on the left side* (*Cantharis mostly on the right side*). Large blebs extend from the spine to the umbilicus, burning when touched. It is worse indoors and better in the open air. Dry skin, with *protracted healing* and *tendency to ulceration*. According to Douglas, it is the remedy of blonde individuals inclined to obesity.

Prunus spinosa, says Douglas, has succeeded in removing the very *troublesome neuralgic pain* which often persists when the *eruption of shingles* has disappeared. And yet, when we study carefully the pathogenesis of this drug, we only find marked respiratory symptoms in the chest and nothing reported about eruptions. The only painful phenomena which could be utilized in the *intercostal variety of the affection*, are so trivial that I am inclined to be reserved in extolling the remedy.

Other remedies which may be studied with profit are: *Dulc.*, *Iris*, *Kalmia*, *Lachesis*, *Causticum*, *Mercurius*, *Thuja* and *Zincum*.—Dr. Eduardo Fornias in October 15th *Homoeopathic Recorder*.

SOME OCCASIONAL REMEDIES.—(Read at meeting of Connecticut Eclectic Association, May 10, 1910, by Frank Webb, M. D., Bridgeport, Conn.)

It has so long been the custom of members of other schools to use the eclectic materia medica without giving due credit, that I think it not out of place for me to give my attention in this paper to some remedies that are of homœopathic origin, which have proven very potent factors in my hands.

We will consider *Bacillinum* 30x first. This remedy was brought to the attention of the medical profession by Dr. J. Compton Burnett, the

great English homœopath. It contains all the material constituents of the tubercular process, containing the bacilli themselves, and is made from morbid matter after death. In tuberculosis, with a loose, rattling cough, constant with bubbling sounds in the lungs, filled with loose pus and mucus, labored breathing, expectoration of a heavy, sticky, greenish or dark-yellow pus, no appetite, *Bacillinum* 30x given in capsules of one grain each, three times a day, every other day, will give the most remarkable results. After the lungs are cleared the cough almost disappears and the patient gains in weight and strength.

In pneumonia, especially of old people, where the lungs are filled with loose, rattling mucus, with inability to raise it and the patient is cyanosed to the point of suffocation, a few doses of the above will change the condition as if by magic.

I could take up all of my time for this paper with *Bacillinum*, but suffice it to say in any asthmatic, bronchial, or pulmonary trouble, with the above symptoms, *Bacillinum* is the remedy every time. If you will try it, not in one but many cases, you will soon learn to rely on it as I do.

Crotalus horridus 8x.—This is the trituration of the rattlesnake virus. This remedy in my practice has been confined to people who have a hemorrhagic diathesis—bleeding from all orifices, ears, gums, nose, of dark blood, with great prostration, followed by days of extreme weakness. The blood is non-coagulable. I have cured two cases that suffered from the above symptoms for years with *Crotalus horridus* 8x, thirty drops in four ounces of water, one teaspoonful every two hours for one month.

Heloderma horridus 30x is the dilution of a member of the scorpion family. It has been proven by Dr. Robert Boocock, and my experience with it has been limited to two cases of locomotor ataxia, with the best results. While it will not cure, it will alleviate many of the worst symptoms, notably the dyspnœa and tendency to fall on the back. The indications I follow in its use are those given by homœopathic authors, "jerking limbs, staggering gait, tendency to turn to the right when attempting to walk, dyspnœa, dizziness with an inclination to fall backwards." Dose, five drops of 30x in a little water every two or three hours.

Lac caninum 30x.—This remedy is the dilution of dogs' milk, as the name suggests, and has proven of great value to me, especially this last winter, when I have used it more than ever without one failure. In tonsillitis or diphtheria, where the patches or membrane forms on the right side and alternates to the left, *Lac caninum* is the remedy every time. My attention was first called to this remedy in a case of tonsillitis that began on the right side of the throat and would be apparently cured, but in a night would shift to the left side. The dose is one dram in four ounces of water, one teaspoonful every hour, in combination with other indicated remedies or alone.

Lachesis.—The main indication for this drug is any and all diseases that begin on the left side and shift to the right, particularly the throat. Hot flashes and perspiration of the menopause are greatly relieved by the remedy, especially in women who have been in poor health since change of life commenced.

Diphtheria, tonsillitis, beginning on the left side and extending to the right side, with a dark-purplish color; sensitive boils, malignant pustules

of any kind of a dark-purple color, typhoid fever, with great stupor and delirium, lower jaw inclined to fall, tongue trembles and catches on the teeth when protruded, perspiration stains yellow, and always cold, are good indications for this drug. Dose, fifteen drops of *Lachesis* 8x, in four ounces water, one teaspoonful every hour.

Lactrodectus.—This drug is procured from a member of the spider family. In my practice it has proven the best remedy that I ever used in angina pectoris, the more chronic the case the better it seems to act. The dose is five to seven drops in a little water every hour until relieved.

Naja tripudians.—In this remedy we have the virus of the cobra. It is one of the most neglected remedies that we have. In impending paralysis of the heart, in diphtheria, where the body is cold, pulse very slow, weak, and irregular, hardly perceptible, I know of no remedy that is so certain and speedy in action in impending heart failure, in rheumatism, or pneumonia in the aged, especially those who suffer from chronic valvular lesions and cardiac hypertrophy. Another indication is in that form of insanity where the patient has a suicidal mania. Dose, three to five grains of 6x trit. *Naja tripud.* every hour or two.

Ova testa.—This is the membrane of the common hen's egg. In those cases where women suffer with the broken back symptom in leucorrhœa. I know of no remedy as certain in its action. The indication for this drug is a feeling as if the spine were broken and either wired or tied together with a string. The dose I have had the best results from is the large dose of ten grains of the 3x trituration four times a day.

Pulmo vulpis is derived, as its name indicates, from wolf's lungs, and is the most valuable remedy that I ever used in humid asthma, especially that form of it that we so often find in cases of chronic Bright's disease; persons who have chronic catarrhal symptoms and œdema of the lungs, shortness of breath that is persistent and will cause a paroxysm of asthma on the slightest motion. Dose, two to five grains 1x trit. *Pulmo vulpis* every one to three hours.

Sepia will be the last of these drugs which are of homœopathic origin that we will consider. *Sepia* is obtained from the cuttlefish, and is adapted to women especially of mild disposition and of dark complexion. It is one of our most reliable remedies in child-bed or the period of pregnancy, especially in complaints brought on or aggravated by washing or having the hands too long in water; pains like labor pains, with a sensation of bearing down in the pelvis and dragging pains in the sacrum, accompanied with a feeling that she must sit close to something and cross her legs to keep something from falling from her vagina. Valuable in prolapse, ulceration of cervix or the os uteri, accompanied by weeping, falling of the hair; in chronic headache at the change of life; in fact, any and all conditions of the menopause that is aggravated by wet, sultry weather or a thunder storm. Dose, five grains 3x trit. *Sepia* every three or four hours.

If any of you are not familiar with these remedies, do not throw them to one side contemptuously as of no value, because they are not strictly eclectic drugs, but try them in the cases where they are indicated, and you will certainly reap the most favorable results from the use of remedies for which we can thank our brethren of the homœopathic school.—*Journal of Therapeutics and Dietetics.*

THE HAHNEMANNIAN MONTHLY.

APRIL, 1911

Transactions of the Homoeopathic Medical Society
of the State of Pennsylvania

BUREAU OF SURGERY

G. W. HARTMAN, M. D., Chairman

THORACOPLASTY.

BY

G. WILLIS HARTMAN, M. D., HARRISBURG.

My choice of subject does not depend for its inception upon the accomplishment of a difficult classical Estlander operation, but rather upon the observation of Nature's interesting attempt to repair a serious thoracic injury. I use my nomenclature advisedly, therefore, when I speak of Thoracoplasty and outline a Thoracotomy. The formative process in this thoracoplasty was not manual. It resulted from the working out of a law of repair designed by the Great Architect of the Universe, by whom the human organism was created, which in its completeness possesses the most gracefully symmetrical lines of bodily conformation and contains machinery that has been the wonder of the ages.

I do not care especially to contrast Nature's osteoplastic formation as discovered in this case with the thoracoplastic possibilities of the modern surgeon, but it is interesting to observe that because the periosteum on the parietal side of the rib clung to the soft structures of the chest wall when the rib

itself was torn from its anchorage to be driven into the pleural sack and lung tissue, the cells could climb along and form a new bone to take the place of the injured one.

It is true that the mind of man as it has been applied in the search for means of curing disease by surgical methods has attained greater success than ever before. Methods used to-day are far in advance of those used even a decade ago. There has been advancement in every department of surgery. The homœopathic surgeon in common with the homœopathic physician has had to overcome trumped up falsehoods and prejudice and opposition of all kinds, the attainments of the avowed followers of Hahnemann are therefore relatively greater than those of our fellows of the other side of the profession, thanks to the great pioneer homœopathic surgeons, if you please. A few years ago it was said that a homœopathist could not be a surgeon. These men have demonstrated conclusively that there is nothing inconsistent or incompatible in the combination of homœopathic therapeutics and surgery. In fact, the combination is ideal. The surgical procedure is intended to remove the cause of the pathological condition and the therapeutic procedure is intended to remove the ill effect of that sick making cause after operation, thereby making the cure not only more speedy, but also more perfect. The only method of working out the reparative process I know of that is superior to this is Nature's own. We all know that she is not infallible, but it is designed that she can select from the blood hurried to the scene, somehow, just those elements needed for the repair of the damage. It is indeed a great satisfaction to be able to do the right thing at the right time to assist her.

Roland S., aged 12 years, fell from a cherry tree during the cherry picking time in June, upon the upturned, exposed roots of the tree and injured the left side of the chest. He was hurried to the hospital for treatment. The lesions were a fractured eighth rib, with torn pleural membranes and laceration of the lung tissue and a fracture of left humerus. He remained in the hospital for three weeks. His injured arm did nicely, but he complained of great pain in his chest and his temperature remained high. The high degree of fever was said to be a surgical fever. On his return to his home we took charge of the case and found a chest wall bulging from pressure of the fluid in the left pleural cavity. We chose to open the cavity. The field of operation—the point of greatest fluctua-

tion—was made thoroughly antiseptic and injected with cocaine. Then a vertical incision of sufficient length was made through the fibres of the *Latissimus dorsi* muscle in the posterior axillary line.

The quantity of pus removed almost filled two small household basins, equaling more than 100 ounces of fluid. Digital exploration discovered a complete fracture of the eighth rib. The fragments or the broken ends of the rib were displaced inwardly; the lower one slightly and the upper one almost an inch. They were denuded of their periosteum so that necrosis was inevitable. The boy was in too poor a condition physically to take a general anæsthetic, therefore we packed with iodoform gauze and treated the case expectantly. The gauze proved to be a poor drainage medium. There was another pint of accumulated pus the next day, when we placed a rubber drainage tube into the wound. This drained the cavity successfully and was used for a little more than two weeks. During that time the boy was stimulated and well fed to prepare him for the general anæsthetic. A general anæsthetic was administered to resect the rib about six weeks after the injury.

We made an incision in the median line, long axis of the rib and bisected it at right angles with another incision. The angles of the wound were then turned aside and the rib was easily accessible. The periosteum was pushed aside further and fragments examined. It was then that we found Nature's thoracoplasty in the shape of a newly formed shaft of rib bridging over the break in the continuity of the bone like a natural bridge.

This was ossified and nearly as large in diameter as the rib from which it sprung. The points of attachment of the new bone to the fragments was similar to the plan of union of the dome to the base of the shell of the turtle. The weld was strong and smooth. It seemed surprising that there could be so much repair in the six weeks' time and that too in the presence of so much pus. The rib's covering clung to the chest muscles and the osteoblastic cells were deposited upon it as a foundation for the new development. The infection which caused the pus and the presence of the broken ends acting as foreign bodies prevented the favorable outcome of this thoracoplasty.

We resected the fragments and new formation in order to get better drainage from the cavity. This was accomplished

by use of the Gigli-Haertel saw and bone cutting forceps. All edges were made smooth and round and the accessible lymph masses were removed. The periosteum was made to recover the amputated ends, the superficial wound stitched up. The previous drainage opening was opposite the ninth rib. The pus passing through it flowed over that rib and macerated its covering. In order to make it possible for that to regenerate we made our opening for subsequent drainage higher or just below the center of our resection wound. With the complete drainage provided by the resection the discharge stopped temporarily in about ten days. It is now almost six weeks since the operation. The patient has been regaining his health very rapidly. He is able to stand erect. He has lost his pallor. His cough is improved. His appetite is excellent. In fact, he is playing with the boys again and assisting his father with light work. I believe that he will become well and strong.

As internal remedies he received chiefly Iod. ars. and Hepar Sulph. We have seen how good to us Nature is and how ready she is to repair the damage to the organism whether due to avoidable indiscretion, or to insidious sick making causes, or to injury.

We have inferred that the diagnosis made immediately after the accident should have been more acute in order that radical measures might have been instituted earlier, thereby removing the great danger to the patient's life and preventing much suffering. We have shown that relief is speedy and sure if surgical measures be adopted, that these measures are not difficult of accomplishment, but can be done by any practitioner; that failure to do them will result in death, and, lastly, that the recuperation is greatly aided by the use of the indicated homoeopathic remedy.

LACTATION IN ITS MEDICO-LEGAL ASPECTS.—Hertsch had occasion to study this subject and examined fifty cases. He describes the appearances of the lacteal fluid both before and after delivery and at term. The summary of his results is that the absence of colostrum corpuscles in milk warrants the conclusion that the child was viable, but not necessarily that it was born at term. The absence of colostrum corpuscles does not admit either of a determination of the month of pregnancy attained nor the day of the puerperium, neither does it decide the question whether or not the child was nursed, or whether the mother was a primipara or a multipara. If on pressure the breast abundantly excretes milk of a white color and mature condition, the presence of even many colostrum corpuscles does not contraindicate that a child at term was born.—*Arch. f. Gyn.*, Vol. 92, 116.

END RESULTS IN PROSTATIC SURGERY.

BY

LEON T. ASHCRAFT, A. M., M. D., PHILADELPHIA, PA.

THIS paper records my surgical work in hypertrophy of the prostate. Within the past twelve years I have made 164 operations, as follows:

Author's Modified Bottini.....	30
Suprapubic Prostatectomy	12
Perineal Prostatectomy	104
Perineal Drainage	10
Partial Perineal Prostatectomy.....	4
Permanent Suprapubic Drainage.....	4

By comparison with abdominal surgery, this number seems small, but we must remember that it has been but twelve years since prostatic surgery has been attempted. Before this, only two cases were reported (by MacGill and Bellfield, 1887).

Now we are in the midst of our success in dealing surgically with the prostate. Many methods have been tried. Castration and vasectomy have been discarded, the modified Bottini has been accorded its proper place: that of searing a contracted and fibrous bladder neck. Perineal and suprapubic cystotomy, with or without partial prostatectomy, have been beneficial in relieving cystitis in the very aged as well as in inoperable and malignant growths, while total enucleation has won a signal victory.

Too much must not be expected. I believe that the average article dealing with prostatectomy depicts a speedy and uneventful return to normal urination.

"Ideal end results" means that several months after operation urination is normal and the bladder free from inflammation. Can such be obtained? Undoubtedly. But, favorable conditions must be present at operation. Variations from these naturally produce indifferent results. But, end results, good, bad and indifferent, may be forecasted by scrutinizing closely, both local and general conditions.

When a prostatic seeks relief, the first thing to decide is: Does he need operation? Operation is usually indicated in the second stage or that of partial urine retention; and, he who submits to it then when his general condition is good, and

when the bladder holds but four or five ounces of residual urine, runs very little risk if the proper route be selected; but if he persists with "catheter life" until contracture or atony follows, the end result will be indifferent. If he defers until sepsis, a much greater risk is incurred, although he may recover from surgical intervention. I have previously decried operation upon the badly infected or the very old, but a wider experience has led me to change my views.

Having decided that operation is imperative, how shall we forecast a favorable or unfavorable result?

These factors must be considered:

I. Mortality. It is the consensus of opinion that the mortality associated with the suprapubic route is about three per cent. higher than any other, while the modified Bottini has an operative mortality of 6.3 per cent. Perineal prostatectomy has, in my hands, resulted in 6 5-6 per cent. mortality.

II. The complications which may follow any operative procedure must be taken into consideration.

Let us discuss the modified Bottini. The original Bottini was unsatisfactory, therefore I modified it. But even so, its field of application is very limited, being confined to stenosis of the vesical neck. The complications which may follow are: Epididymitis, urinary infiltration, sepsis, recto-urethral fistula, perineal and scrotal abscess, shock, hemorrhage, and pulmonary complications.

It is an incomplete operation in many instances and not infrequently has to be repeated. In fact, it should only be practiced by one who is skilled in perineal work. That it is an operation of undoubted value, however, when indicated, will be seen by reviewing the following case.

G. S., aged 80, patient Dr. H. Murray Stokes, consulted me on December 15th, 1900. During the past ten years he had been troubled with cystitis of prostatic origin. Many surgeons had declined operation. "Catheter life" was the fate assigned him. He had suffered several attacks of complete retention. It was during the last one that my services were required. Words fail me when attempting to describe his appearance. A feeble, old man whose every act was an effort.

However, it was decided that my operation be done. On February 6th, perineal cystotomy was performed and the middle lobe incised; each lateral lobe was then incised. An uneventful recovery followed, and within three weeks he re-

turned home much benefited. Because of the condition of the bladder, permanent perineal drainage was made. Not much was to be expected; it was, however, very gratifying to know that for several months he was free from the discomforts of prostatic hypertrophy.

The complications which are sometimes associated with the suprapubic method are: Severe hemorrhage, sepsis and uraemia, inefficient drainage, shock, pulmonary complications, fistula, contracted bladder, epididymitis, injuries to rectum, residual urine and stricture of prostatic urethra.

On the other hand, any growth may be attacked and totally removed by this route, while it also affords ample space for thorough intra-vesical inspection.

The post-operative complications which may follow perineal prostatectomy are: Shock, sepsis and uraemia, epididymitis, hemorrhage, pulmonary complications, residual urine, incontinence of urine (this is the most annoying one, particularly if it becomes permanent), perineal fistula (this is very apt to follow those cases which are malignant or tubercular), and stricture of prostatic urethra.

The advantages, however, apart from its low mortality are many, inasmuch as it supplies free drainage of the bladder by observing the law of gravitation, it has a small percentage of failures and a large one of cures, in a large number of cases, the faculty of spontaneously emptying the bladder returns, micturition is easy, and the bladder may empty itself almost completely.

While in less brilliant instances, although some residual urine remains, the urine becomes clear and cystitis disappears, if bladder irrigations be given following the operation.

The complications which may follow both the suprapubic and perineal routes are: Epididymitis, residual urine, fistula, sepsis and uraemia, stricture of prostatic urethra, hemorrhage, shock, and, occasionally, pulmonary complications.

Sexual weakness subsequent to operation is hardly to be considered, since it usually exists before; however, two of my patients married within a year following perineal prostatectomy.

The advantages of these operations are: Total removal of the enlarged gland, good urinary functions, few unpleasant complications and a comparatively low mortality.

Although I have given an unbiased opinion of these methods, I have never regretted performing prostatectomy by the perineal route.

There are, however, a few who are not suitable for prostatectomy or the Bottini, especially old and enfeebled men, whose very appearance argues against recovery from the shock attendant upon major surgical interference. Previously I condemned such to "catheter life," but now I advise and practice perineal cystotomy, quickly performing it and allowing the drainage tube to remain for several days. This temporarily places the bladder at rest and frees it of septic products. It has not, in my hands, been attended by any mortality. Sometimes, if the patient is sufficiently strong, partial prostatectomy may be performed at this time, removing the offending lobe.

In advanced cases of malignancy, where cystitis is marked, beneficial results may follow permanent suprapubic or perineal drainage. In three of my cases, permanent suprapubic drainage was established as *ressort dernier*.

Appended is a table of operations which I have made, together with their results:

AUTHOR'S MODIFICATION OF BOTTINI OPERATION.*

Number operated	30	
Cured		15
Improved		7
Unimproved		6
Deaths		2
	—	—
Total	30	30

POST-OPERATIVE COMPLICATIONS.

Epididymitis	6
Hemorrhage (death resulting).....	1
Sepsis and Uraemia (death resulting).....	1
	—
Total	8
Mortality, 6.2-5%.	

* Transactions of Surgical and Gynæcological Association of A. I. H., Washington, D. C., 1900.

SUPRAPUBIC PROSTATECTOMY.

Number Operated	12	
Cured		2
Improved		2
Unimproved		5
Deaths		3
	—	—
Total	12	12

POST-OPERATIVE COMPLICATIONS.

Epididymitis	2
Hemorrhage (death resulting).....	1
Sepsis and Uraemia (death resulting).....	2
Residual Urine	2
Contracted Bladder	3
<hr/>	
Total	10
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CASES IN WHICH AN ADDITIONAL OPERATION WAS DONE AT TIME OF PROSTATECTOMY.

Removal of Stone (one death resulting).....	3
Removal of Tumor (two deaths resulting).....	2
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Total	5
Mortality, 25%.	

PERINEAL PROSTATECTOMY.

Number Operated	104
Cured	89
Improved	6
Unimproved	2
Deaths	7
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Total	104 104

POST-OPERATIVE COMPLICATIONS.

Epididymitis	6
Abscess, Scrotal	1
Perineal Fistula (one malignant and one tubercular).....	2
Incontinence of Urine (one permanent).....	3
Residual Urine	5
Shock from Hemorrhage (death resulting).....	2
Sepsis and Uraemia (death resulting).....	4
Sepsis following malignancy (death resulting).....	1
<hr/>	
Total	24

CASES IN WHICH AN ADDITIONAL OPERATION WAS DONE AT TIME OF PROSTATECTOMY.

Removal of Stone (one death resulting).....	7
Removal of Tumor (one death resulting).....	2
Circumcision	1
Hydrocele	1
Orchidectomy	1
<hr/>	
Total	12
Mortality, 65.6%.	

PARTIAL PERINEAL PROSTATECTOMY.

Number Operated	4	
Cured		0
Improved		4
Unimproved		0
Deaths		0
	—	—
Total	4	4

PALLIATIVE PERINEAL CYSTOTOMY.

Number Operated	10	
Cured		0
Improved		6
Unimproved		4
Deaths		0
	—	—
Total	10	10

PERMANENT SUPRAPUBIC DRAINAGE.

Number Operated	4	
Cured		0
Improved		2
Unimproved		2
Deaths		0
	—	—
Total	4	4

These statistics show a mortality of $7\frac{1}{4}$ per cent. Discussing them, I may say of the Bottini that many were done as late as twelve years ago. I now rarely practice it.

Suprapubic prostatectomy would undoubtedly have shown a lower mortality except in two instances for carcinoma. This would have reduced the mortality to 81.3 per cent. Apart from this, the post-operative complications, contracted bladder and residual urine, were not especially annoying.

The mortality of perineal prostatectomy would likewise have been reduced to 3 per cent. had it not been for three (two of hematuria and one of sepsis) emergency operations. The following post-operative complications were met with: Two cases of fistula, one malignant and one tubercular, and one case of persistent incontinence of urine.

It is not my purpose to dwell on technic, but I will point out several measures by which I believe the post-operative complications associated with perineal and in some instances, with suprapubic prostatectomy, may be avoided.

In order to prevent epididymitis, the scrotum should be carefully strapped immediately following introduction of the drainage tube. This is maintained throughout the entire convalescence. Those who have had epididymitis prior to operation should be subjected to vasectomy. This prevents recurrence.

Incontinence of urine usually results from injury to the compressor urethrae muscle. If care be exercised in making the incision it need not occur.

Delayed post-operative dribbling, together with cicatricial contraction of the posterior urethra may be avoided by bladder gymnastics: Forty-eight hours after operation, I insert a Mercier catheter through the urethra and irrigate the bladder with sterile water; subsequently, I inject a half dram of a 20 per cent. solution of argyrol. The catheter having been withdrawn, I request the patient to urinate. The act is interrupted by a command to stop voiding urine. This having been done, within a half a minute, I again instruct him to recommence, then stop, and so on until the act is completed. (It is remarkable how quickly the urine comes through the natural channel.) This treatment is carried on daily. By this means incontinence of urine and cicatricial contraction of the prostatic urethra are avoided.

Residual urine sometimes results where there is extreme atony of the bladder. This, too, may be largely overcome by the bladder gymnastics just mentioned.

Wounds of the rectum, with their resulting fistula may be avoided during enucleation by always inserting the finger, palmer aspect upwards, and also by paying particular attention to the treatment of the perineal wound immediately after the removal of the drainage tube. The method I follow is irrigating the wound with sterile water, thereafter crowding at least a half dram of a ten per cent. emulsion of iodoform in vaseline directly into the wound and then gently packing with iodoform gauze. Oxide of zinc ointment is next smeared over the perineum, scrotum and anus, this doing away with the eczema madidans frequently associated with this condition. Then the perineum and buttocks are carefully wrapped in sterile gauze. For the first forty-eight hours following the removal of the drainage tube, these procedures are repeated every six hours in their minutest detail. After that, however, dressings need be made only twice daily. As soon as the perineal wound shows signs of healthy granulations, then the margins

are painted with a 1-100 solution of protargol and packed with iodoform gauze. The prevention of fistula is accomplished by these methods and by always seeing that the edges of the perineal wound are everted.

It is true that this is tedious, but careful attention to details makes this operation a successful one for enlarged prostate.

Hemorrhage may sometimes be avoided by gently grasping the neck of the bladder with the forceps and making pressure upon the venus plexus, subsequent to enucleation.

Sepsis and uraemia are factors which are to be dreaded, inasmuch as they are largely responsible for mortality, and how to overcome them is a problem. They may exist prior to operation and may be checked by bladder irrigations, following prostatectomy as well as by the supportive treatment usually given.

When one contemplates a prostatic operation, the kidneys must be taken very seriously into consideration. Keyes very aptly says: "Any one can tell what the kidneys have done and what they are doing, but no one can possibly foretell what they will do." However, it is possible to gauge their functional activity by the methylene blue test. Fifteen minims of a 5 per cent. aqueous solution of methylene blue are injected into the muscles of the buttock. In a healthy subject, the urine should be tinged a faint green within thirty minutes. This rapidly changes to a well marked green, reaching an emerald green in from one to four hours. The highest point of the blue excretion is usually reached in the morning urine of the second day. The duration of the excretion of the blue is usually not prolonged over three days. Any departure from this indicates lack of functional activity of the kidneys. Where there is an obstruction in the lower urinary tract, as in cases of prostatic enlargement, elimination is invariably delayed. This tardiness is proportionate to the size of the obstruction and to the amount of disease of the kidney. In two of my cases, there was a delay of over four hours and in one, the urine was tinged for six days subsequent to injection.

In conclusion, total removal of the gland is usually followed by perfect functional activity of the bladder, if done sufficiently early before marked contracture of that organ exists. Even in less favorable cases, the degree of recovery is proportionate to the stage of the disease prior to operation. The mortality is low. It is, of course, favored by the perineal route. Frequently, however, bladder gymnastics, as previously described, have to be given to restore perfect functional power.

DISCUSSION BY GEORGE F. BAER, M. D., PITTSBURG, PA.

The two important points to be observed in finger enucleation through external-perineal urethrotomy are simplicity and rapidity. The trained finger enucleates the gland far more rapidly than when sight is entirely depended upon, the method used in the dissecting or open method. Rapid enucleation may be accomplished by an expert within ten minutes.

Failures in the treatment of prostatic hypertrophy are largely due to not appreciating the fact that catheter treatment is more dangerous than radical operative procedures, as has been proven by Dr. Ashcraft's paper.

The medical wing of the profession still continues to prepare patients for failure of surgical treatment by infecting the bladder and by permitting residual urine to accumulate to the point at which its presence is injurious to the kidneys, thus greatly augmenting the dangers of surgical intervention.

While the suprapubic method is in a way indicated, perhaps in a small number of cases, yet the perineal route, as pointed out by the essayist, is quicker, safer and productive of the best results, at least, in my experience.

THE ETIOLOGY OF CARCINOMA AND PATHOGENIC BLASTOMYCETES.—Leopold (Dresden) for many years has studied this subject, and about ten years ago published an extensive article wherein he gave the results of his observations. He devised a microscope specially constructed so as to maintain a constant body temperature and permitted observation during prolonged periods, even during months, of fresh tissue and of the hanging drop. He has now published the second part of this work. The article cannot be here reviewed in detail, but the following conclusions indicate his views. They are: In the examination of fresh tissues of human, malignant, non-ulcerating new growths there were found blastomycetes in 50 out of 64 cases, that is 78.1%, and in 37 of the 50 cases (74%) they could be grown in pure culture. In all of the last 22 cases blastomycetes could be grown in pure culture. Injections of these pure cultures were made into three rats, and caused intra-abdominal tumors resulting in the death of the animals. From these tumors blastomycetes could again be obtained in pure culture. He believes from the regularity of these occurrences that blastomycetes can no longer be regarded as accidentally present in malignant new growths.—*Arch. f. Gyn.*, Vol. 92, 31.

THE X-RAY—ITS USE TO THE GENERAL PRACTITIONER IN SURGICAL CONDITIONS.

BY

M. M. FLEAGLE, M. D., HANOVER.

FROM the earliest mythological times electricity has been surrounded by great mystery, and even at the present time we look with awe upon its wonderful manifestations. All space, even to the most distant star, is permeated by a very exceptional form of matter, or simple substance, known as ether. It is the one universal medium through which all actions between separate bodies are carried on. In brief, its function is to act as a *transmitter* of motion and energy. Practically, then, this ether is electricity in a latent or passive state, and to convert it into energy we must destroy its equilibrium. Many mechanical and chemical devices have been invented to accomplish this, and when this difference in electrical level, so to speak, is kept up, it causes a current of electricity to flow.

In the year 1895 Prof. Wilhelm Conrad Roentgen, Director of the Department of Physics in the University of Würzburg, while experimenting with electricity by passing a current through a Crookes' Vacuum Tube, which he had covered with a substance opaque to ordinary rays of light, noticed a fluorescent substance, at some distance from the tube, exhibit a pronounced visible glow. He could not account for this phenomenon. A new form of radiation had burst forth. A new science came into being. Not knowing the nature of this new form of energy, Roentgen named these new manifestations X-Rays. The true nature and origin of the Roentgen rays is as little understood to-day as when first discovered.

The essential factor for the production of Roentgen rays is, that the discharge must take place in a tube of high-vacuum (1-1000000 part atmospheric pressure). The X-Rays differ from ordinary light-rays: (a) in that they pass through bodies usually opaque to light; (b) they cannot be *reflected* or *refracted*, nor can they be focused by the most powerful lenses. There is also absence of diffraction. These facts seem to indicate the extreme shortness of the ethereal wave-lengths, and the infinitely fine and rapid vibrations which must necessarily occur. We thus get some idea of the extreme attenua-

tion of this simple substance—Ether—so fine that it passes through, or rather between the atoms or particles of matter composing bodies ordinarily opaque to sunlight.

Very seldom has any great scientific discovery shown itself to be so generally useful to the general practitioner as has the development of the X-Ray. Wonderful results have been accomplished in the comparatively short time of fifteen years, and the end is not yet. It would seem that any force, or form of energy, so potent for good, ought to come into general use, and such, perhaps, might be the case if the X-Rays were not just as potent for harm. It must be stated, however, that most of the harmful effects came at a time when X-Ray work was largely in the experimental stage, when its baneful effects were not known, and the mischief was done before the operator realized his danger. Recent advances and improvements in the construction of X-Ray outfits, and in the methods of protection for the operator and patient, have to a great extent reduced the danger to both patient and physician. I believe that Radio-therapy is, or ought to be, a part of the armamentarium of the general practitioner, just as much as any of the other agencies at his command, either Physiological or Medical. As a matter of fact, and notwithstanding the mystery which surrounds the X-Ray and its hidden powers, the science of its application does not seem to me to be more intricate than the proper administration of drugs. An essential requisite in the successful use of Radio-therapeutics is, that the operator understands thoroughly the capabilities of whatever apparatus he uses. The physician who gets down and digs until he understands the mechanism of his equipment, who has a good practical knowledge of the adaptability to treatment of injuries and diseased conditions, who uses good judgment in selecting his cases, and who realizes that he could *promise* much, but *guarantee* nothing, to his patients, will obtain a great amount of satisfaction both for himself and patient from the use of Radio-therapy. Failure to observe these fundamental requirements will bring the operator and the method of treatment into disrepute.

EQUIPMENT.

From the standpoint of the general practitioner, I would say that a good Static machine (not less than 16 plates), kept

in good working order, and used to actuate the X-Ray tube, will give much satisfaction. It gives a very steady current, the life of the tube is longer (as there is no "reverse" current), and the Static machine may also be used for the treatment of conditions outside of the sphere of Radio-therapy. Tubes of different degrees of "hardness," or a tube in which the vacuum is "self-regulating," is a necessity. A suitable tube holder, and appliances for protecting the patient and physician; a good Fluoroscope, and the general practitioner will be fairly well equipped for the class of work he will be called upon to do. I have purposely omitted Radio-graphic work and its equipment, because I cannot, as yet, convince myself that this class of work is in the realm of the general practitioner, especially if he be a busy man.

There is scarcely a condition in the whole realm of surgery that does not occur sooner or later in the experience of the general practitioner. His reputation and success will depend very largely upon his ability to diagnose and treat existing conditions *correctly*. There is probably no other branch of medicine that will give more satisfaction than the proper use of Radio-therapy in the surgical field.

In fractures and dislocations the relationship of the parts can easily be seen, both before and after reduction, thus enabling us to get the best possible results. In cases where the patient is not seen for several hours after the accident, and much swelling has developed, it may be necessary to determine whether a fracture or dislocation, or both combined, exists. This can be done with the most accuracy, and the least pain, by the use of the X-Ray tube of proper vacuum, and the fluoroscope. In injuries around the ankle joint it many times becomes necessary to determine whether we have a *simple sprain* or a *fracture*. So also with the wrist joint. In one case which comes to memory, the patient came to the office complaining of rheumatism of the wrist joint. Inspection showed the joint and forearm to be very much swollen; history as to injury was negative, but a fluoroscopic examination revealed a Colles' fracture, and the case was treated accordingly.

In dislocations of the small joints, as, for instance, the finger joints, where great swelling is liable to supervene quickly, it is safer to use the X-Ray to determine whether reduction has been properly accomplished.

The general practitioner will often be called upon to locate

bullets, shot and other foreign bodies. This can be done by the use of the X-Ray with little pain, and the least possible risk of infection (which might easily occur from repeated probing). The chief requisite in this case is a thorough knowledge of the anatomical structures under examination, and examining the part at different angles, before operating, since the art of X-Ray localization of foreign bodies is rather an intricate problem for any except *specialists*, who have the necessary appliances.

Probably the most useful sphere of the X-Ray in surgery, from the viewpoint of the general practitioner, is in the treatment of Epitheliomata, Lupus, Chronic Ulcers, and other skin diseases. Most of these lesions occur around the head and face at points where their removal by the knife would cause great deformity, and leave unsightly scars. In all cases successfully treated by the X-Ray, the cosmetic effect is far superior to that obtained by the knife, caustic, or cautery. My chief successes have been with lesions rather superficially located, and I seemed to get better and quicker results where there was an *open sore*, than when treating through the integument. I cannot account for this. Lesions deeply located, as, for instance, Tuberculosis of the Lungs, Cancer of the Naso-pharynx, or of the Orbit, have successfully resisted X-Ray treatments, even when applied to the full extent of tolerance to the patient. I have had no X-Ray experience with Cancer of deeper seated organs, e. g., stomach, liver, uterus, etc.

Before I proceed I desire to impress one great thing in regard to X-Ray treatments, and that is, the necessity for care. This applies especially to the general practitioner, whose time is usually at a premium. The danger to patient and physician is very real, I assure you. One experience in treating the *bad* effects of X-Ray therapy will usually be sufficient to make the most enthusiastic operator "sit up and take notice."

There are at least *three things* which will *always* have to be considered in X-Ray work: (a) Idiosyncrasy, or special susceptibility of the patient to the action of the X-Ray; (b) the *time of exposure* to the X-Ray, and (c) the proximity of the tube to the patient, or lesion. Neglect of any one of the three will bring both patient and operator to grief. The theory advanced by some, that an "X-Ray burn" is less liable to develop from a tube actuated by a Static machine ought not to

be accepted without great caution. The "burn" in the great majority of cases depends upon the neglect of the foregoing precautions, regardless of the *source* of electrical energy. I may say, however, that coils (on account of the greater volume of energy), and *low-vacuum tubes* (on account of the greater number of actinic, "chemical," rays), are most apt to produce evil effects, and I am inclined to believe that if some method for "filtering out" the chemical (actinic) rays could be discovered, that severe X-Ray burns (other technique being correct), would be a thing of the past.

I have had good success in the treatment of Epitheliomata, whether mild or severe cases, with the X-Ray. My technique in Epitheliomata and other skin lesions, is to give *two* treatments at intervals of three days, if possible, the duration of the *first* treatment being 15 minutes, and 12 minutes for the *second* treatment, the anode being about six inches from the lesion. I always protect the patient with *lead-foil* (except the part to be treated) *after the first treatment*. I then wait *one week* from the date of *second* treatment, and if any reaction has appeared, I allow it to subside completely before applying any more treatments. If *no* reaction has appeared at the end of one week from date of second treatment, I give the *third* treatment of 10 minutes' duration, and follow with two more treatments at intervals of *three* and *four* days respectively, each treatment being of 12 to 15 minutes' duration (five treatments in all), and then wait another week from date of last treatment. The great majority of patients (in my experience), show some reaction by this time, and many of them much sooner, in fact, the worst "X-Ray burn" I ever had came from giving a patient, of unknown susceptibility, *three* treatments, these treatments having been given the *first*, *third* and *ninth* day respectively. I have had cases, however, in whom the reaction did not develop until fourteen or fifteen days after the date of last treatment. It is my experience that in any given case you get the best and quickest results by producing a reaction on the skin, but it is the *excessive* reaction that must be avoided. I find it necessary to follow the action (or reaction) of the treatments very closely, since I have observed that unless the sore is entirely healed by the *first series* of treatments, it many times proves very resistant to the further action of the X-Rays. I know of no explanation for this. I have also observed that when cartilaginous structures, either of the ear

or nose, are involved, it is a waste of time to continue X-Ray treatments unless the parts involved are first surgically removed. I also find that lesions having a *lead-colored* to *purplish* appearance (whether open or closed), are very unfavorable for the action of the X-Ray. Tubercular ulcerations of the skin are very resistant to the action of the X-Ray, unless the general condition of the patient can be improved. During the past few years I have made no special effort to heal them, as I observed a general aggravation of conditions elsewhere in the body follow such healing.

Syphilitic ulcerations of large extent yield nicely to X-Ray treatment. I remember a case in which there were extensive ulcerations (specific) on the left cheek and temporal region, and all of the left lower eyelid had been eaten away. We consented to treat the case only after a written guarantee that the patient would not hold us responsible for any injury to her eyesight which might result during or after X-Ray treatments. The ulcerations were so extensive that we could not protect the eye-ball at all. We turned the full force of the X-Ray upon the lesions, and got a remarkably fine result (entire healing), after four months' treatment, with no injury whatever to the sight of the eye.

Cancers located at a point where skin and mucous membranes join, are tedious to heal, but the cosmetic effect, after X-Ray treatment, far surpasses any form of surgical intervention, e. g., Cancer of the lower lip.

My experience with Cancer of the breast has been far from satisfactory, and I have observed that when ulceration has once begun, in fact, I might say that in the great majority of breast cancers, it is a loss of time and unjust to the patient to give X-Ray treatments. *Cut first*, then give X-Ray treatments, and I believe you give the patient the greatest chance for her life.

Sycosis menti is a very unruly form of disease to deal with on account of its constant tendency to recur. I have had good success in its treatment with the X-Ray.

There are other surgical conditions where Radio-therapy has proven useful, but the instances cited are such as the general practitioner will be most frequently called upon to treat.

Observation has taught me that it is a waste of time and money on the part of the patient to take X-Ray treatments, if he be addicted to the use of alcoholic stimulants. The patient

must not take alcohol in any form whatever, if he expects any permanent results from X-Ray treatment.

The accurate measurement of X-Ray dosage has not yet been accomplished, but for all practical purposes it is only a matter of time and careful observation until the operator will know when his patient is getting the benefit of a good, "fat" ray.

I believe that the time will come when it will not be considered safe, from a legal standpoint, for the general practitioner to do surgical work, unless he can *confirm* his *diagnosis* and his *treatment* by the use of the X-light; in fact, it may become as much of a necessity as the *clinical thermometer*.

The great essential is that the operator exercise *care*; *learns to use his instrument properly*, and *interprets its findings correctly*.

DISCUSSION.

SECRETARY GRAMM: I think the society is to be thoroughly congratulated on the fact that Dr. Fleagle has chosen for his subject the value of the X-ray to the general practitioner. You all know how the X-ray was presented to the profession, and by the profession to the public, and that hardly a public print, lay or medical, could be picked up without finding extensive articles as to cures of malignant growth by the application of the X-ray. Those of us who did any work in that line were absolutely overrun; and overrun is a very mild word to use in regard to the number of cases that presented themselves for treatment in those times, by people who wanted to be cured of malignant growths—in many cases growths that had been declared absolutely inoperable by surgeons of eminence. It was taken up as a fact; the excitement in regard to the absolute cure of cancer rose to a very high pitch; and, strange to say, that at that time many of our most eminent surgeons condemned the X-ray out of hand—didn't wait at all to find whether it really, truly would prove to be what it looked as though it was about to be, but condemned its use—stated that there was no possibility of the X-ray taking the place of surgical intervention in the cure of malignant diseases.

Before long, most of us had X-ray burns developed by reason of lack of knowledge of dosage, by reason of lack of knowledge of the susceptibility of the individual, by reason of lack of knowledge of the number of treatments required to be given in close proximity; then along came the reaction. The public prints took up the cry against the X-ray and physicians all over the world, almost, condemned it. But those of us who had seen the marvelous results that were brought about, in a very large proportion of the cases, have kept on using it; and the X-ray will gradually resume its proper sphere in medicine.

I recall one of the eminent members of our society stating to me that he had seen many a fad rise in medicine, and he had seen many a fad die, and that the X-ray would be one of them; and I answered him in

this way: "You are a thorough student of the homœopathic materia medica; you know the indications for aconite, you know when aconite cannot relieve a patient by reason of it not being indicated; and no scientific physician can ever claim that a measure which has proved remedial in a certain number of cases will not have precisely similar indications for its use in similar cases." In other words, the early users of the X-ray have been the provers of the X-ray; and the proving is not yet complete.

More is expected, by the average individual, of the X-ray than it can accomplish; and so Dr. Fleagle says, very well, that in many cases of malignant growths an operation is first indicated, and why? I am in the habit of explaining it to my patients in this manner: If we build a city, we build a sewerage based upon three estimates: the first, the normal estimate of what those sewers are supposed to carry off; the second, the extra strain that they may be called upon to stand, in case of a destructive cloudburst; the third, a percentage over and above that estimate, so as to allow for any mistake in our calculations when we built our sewer. So nature has built the lymphatic system. This year an extraordinary quantity of water is to be passed through the sewerage system of that city, and the pressure behind is so great that all three of these factors on which we based our estimates are overleaped. There is only one thing happens: our sewerage system goes to pieces. And so our lymphatic system goes to pieces when by the destruction of the cellular elements of malignant growths we throw into the system, to be carried away by the lymphatic system, a greater quantity of material than that system was built to carry. Therefore, we have our fevers; therefore, we have our diarrhœas; therefore, we have our patients who are actually made sick by the use of the X-ray. Not the fault of the X-ray, by a great deal; it is the fault of the operator.

In those cases it is necessary, first, to remove the excess of material by surgical intervention, that it is impossible for the system to care for when the cellular elements are destroyed, as they are by the X-ray. Then, not necessarily to close the wound; in fact, as Dr. Fleagle says, open wounds, open sores, are better amenable to the action of the X-ray than the growths which do not show an open, ulcerating surface; not necessarily, I say, should the wound be closed and healing be allowed to go on, but the parts, where it is possible, be allowed to remain open, so that the internal tissues (not the skin) receive upon themselves the full action of the X-ray. Now, some of our homœopathic friends will say, "What are you doing? You are destroying the evidence of disease, not the disease." I can point out to you a patient to-day who will as surely die from carcinoma in a short time as we are here to-day; and yet that woman says to me every time she comes, "Doctor, I feel stronger." Why? Simply because the action of the X-ray is not a local action. It is not limited to the absorption of the malignant growth. It is the history of every case in which cachexia has already shown itself that a return to appearance of normal health takes place; that the haemoglobin shows an increase in quantity, that the proportion between the blood cells and the white corpuscles assumes a more normal condition; in other words, we can actually demonstrate that we are acting upon that human system not only locally, but we are producing a systemic effect that is in a curative direction.

Many a case which has been called inoperable by surgeons of eminence and skill, and under whom many inoperable cases have come for diagnosis and for operation, have come under the treatment of X-ray operators and have actually been cured; or, where such a condition of affairs was impossible, the patient's life has been prolonged so much that it was well worth while. I recall a case that was operated by our Dr. W. B. Van Lennep, of carcinoma under the right ear; after the second operation he said: "If this ever comes back, I am sorry to say that I fear you are done." It came back. Fortunately, it was an eroded condition that came with the neoplasm; and that man was kept alive by steady treatment for over five years; whereas, from all indications, he should have died within three months.

Now, that man's salary was \$6,000 a year, and the X-ray to that family meant \$30,000.

Dr. Benson operated a case of melanotic sarcoma which, when he got down to the angle of the right jaw, was found to have already affected the periosteum. That man was rayed; and every time Dr. Benson would see the man, he would say: "You ought to be dead, not alive." And you all know how melanotic sarcoma recurs. You all know the utter hopelessness and helplessness with which a patient approaches the recurrence of a melanotic sarcoma. And yet this man is to-day cultivating his farm in Chester County, and that has been over six years ago since he was cured; whereas, he should have died, according to Dr. Benson, three months from the date of the operation.

Now, I make the plea with Dr. Fleagle that we investigate the X-ray from a standpoint of its indications and the standpoint of its limitations, recognizing and acknowledging the fact that the proving (as we put it in our homœopathic parlance) has not yet been completed, but that all the indications are that in the X-ray we have a measure which demands the serious and considerate attention of the medical profession. (Applause.)

SECRETARY POND: I think the subject has been pretty well covered, both by the paper and by Dr. Gramm's remarks. There was one little point in the technique which I don't think either one touched upon, in regard to the use of filters. In treating deep seated lesions it has been my custom to use a filter, either of sole leather or a thin sheet of aluminum. I have used these filters on cases where they had not been used previously, and I had produced quite a decided dermatitis, and kept right along with the treatment, without aggravating them at all; and the dermatitis would thoroughly heal up—it would disappear while undergoing a course of treatment.

Previously, up to within a year ago, I treated all my skin cancers—skin epitheliomas, with the X-ray. Successfully, yes, but the cases were long and tedious, drawn out, a great number of treatments; and frequently they got tired coming to the office. Since about a year or eighteen months ago I began to use carbon dioxide, as demonstrated this morning; it was much the preferable treatment for skin cancer.

I would like to corroborate Dr. Gramm's remark in regard to the better feeling of the patient after an X-ray treatment. I never have been able to explain it satisfactorily to myself; but nearly every patient who is suffering from malignant growth, even sometimes when I have not been able

to say that they were cachectic at all—but they would nearly all of them make a remark, after treatment, as to how much better they felt.

I have treated a number of so-called inoperable cases in the hospital—cases that had come to the surgeon for an operation and the surgeon refused to operate. One marked case which I recently discharged, I would like to report. This case came to the hospital for an operation for some sort of an abdominal tumor. Dr. Gregg operated the case—cut down upon it and found a growth larger than a good-sized cocoanut; but the bowels and abdominal organs were so involved in it that he considered it inoperable—simply made a little section for examination, and closed up the abdomen. Under examination that was shown to have been a round-celled sarcoma. It was referred to the X-ray department. I started to ray her, and gave her a series of forty treatments, about two a week. At one time during her treatment she developed some dermatitis and we had to discontinue the treatment for about two weeks; but at the end of that course of treatment the tumor had entirely disappeared, as far as external palpation could discover. She remained in the hospital, but complained of considerable abdominal pain at times, and was very desirous of an operation. Dr. Gregg refused, time after time, to operate—said there was no reason for it; but finally, after standing her importunities for some time, he said: “I will operate, although I don’t think there is any necessity.” The abdomen was opened; but he found that these pains were probably from some adhesions of the bowel, but the tumor had entirely disappeared; there was no indication of her having had such a condition in the abdomen.

My result in sarcomas has been something remarkable. They have all practically gotten well. That is, not with bone sarcomas; but with soft sarcomas in recurrent breast cases, our results have been good.

Now, as regards the indications for the treatment, for the reason, at our last meeting, in Scranton, I think that subject was brought up; why, perhaps you might say that the X-ray is homœopathic to these malignant conditions. It certainly produces tissue changes, which almost exactly resemble malignant cellular growth; and I think Dr. McClelland mentioned that fact in his paper at the meeting at Scranton. The other school acknowledges the fact that it produces conditions which cannot be told from cancers studied under the microscope, but make no explanation.

THE RANGE OF APPLICABILITY OF THIERSCH SKIN-GRAFTING.

BY

H. L. NORTHROP, M. D.

My contribution to-day draws your attention to Thiersch skin-grafting, one of the commonest and simplest methods of covering raw surfaces, no matter how caused, and one easily employed by any practitioner who is at all surgically gifted or mechanically inclined. The period of convalescence is ma-



FIG. 1.

terially shortened, suffering and expense are saved the patient, time and labor are saved the doctor (and the poor fellow de-



FIG. 2.



FIG. 3.

serves some thought and consideration) and, more than all, only by skin-grafting is a cure made possible in many cases. Not only can surface defects be covered, but the resulting integumentary protection is of a much better character and quality and is more nearly normal, i. e., possesses much less scar tissue with its unsightliness and tendency to irritability, keloid formation and degeneration.

Case 1 (fig. 1) could be multiplied almost ad infinitum, illustrating a class of cases common in every hospital, and most successfully brought to a speedy and complete cure by the Thiersch process. The leg herewith illustrated was extensively burned; at the proper time I took grafts from the opposite thigh and applied them to the large raw area. As seen in the illustration, the majority of them adhered; the dark areas are those of granulation tissue growing between the successful grafts. No other method of treatment could have



FIG. 4.

done as well in this case; it would have been a total waste of time, and much more, to have tried dressings of various kinds, ointments, powders, etc.

Case 2 (fig. 2) is a woman whose right breast had been removed three years previously for malignant disease. My operation dealt with the removal of an ulcerating, adherent carcinomatous mass, of both pectoral muscles and the infected contents of the axillary cavity. The operation wound measured 9 inches by $6\frac{1}{2}$ inches, and its edges could be approximated and sutured only at the angles of the wound. One week later I removed enough grafts from her thigh to cover this large surface defect, and every graft but one (at the upper extremity of the wound) adhered. The result three weeks later, when the patient was discharged from the hospital, is seen in figure 3.

Case 3 (fig. 3), Miss T., age 21. Since her birth she has

had a hairy mole on the left side of her face, extending from above the hair border in the temporal region down nearly to the angle of the jaw, measuring $4\frac{5}{8}$ inches long by $2\frac{5}{8}$ inches wide. A thick mass of coarse hair grows from this large pigmented surface, and it has been necessary for her, at frequent intervals, to cut off the hair with a pair of clippers which she keeps expressly for this purpose. The hair grows rapidly and merges into that of the left eyebrow.

Under ether I encircled the entire mole with an incision and removed the pigmented area, including all the hair follicles and pigment down to a thin layer of subcutaneous fat. No branches of the facial nerve were encountered, as they lie beneath the fatty layer. One week later I took enough Thiersch grafts from her left thigh to cover the operation wound, and I was delighted to observe, in a few days, that every graft had taken and presented a pinkish tinge. The ultimate result and degree of improvement are well shown in the accompanying illustration (fig. 4). The new cheek is soft and pliable and the surface, now, fourteen months after operation, is becoming more and more like normal skin.

The Thiersch method of grafting cannot be spoken of too highly in cases where it is applicable, and its range of application is a wide one. I am convinced that many cases should be grafted which are not.

SOME REMARKS ON THE ANATOMY OF THE ABDOMINAL WALL. WITH ESPECIAL REFERENCE TO THE SURGERY OF THE APPENDIX.

BY

H. M. GAY, M. D., PHILADELPHIA.

THERE is an old saying to the effect that there is nothing new under the sun. This would seem especially true when applied to anatomy. However, it is a matter of common knowledge that some things are so old that they seem new. This also especially applies to anatomy. I will say at the outset that this paper is a frank appeal for a more anatomical consideration of the surgery of the appendix.

As I have stated once before in a paper on this subject, which I had the pleasure of reading before the Germantown Society of Philadelphia, I believe that hernia, following abdominal

operations except under the most extraordinary circumstances, might almost be regarded as a surgical crime. As is well known, the so-called anatomical procedures consist in entering the abdomen by splitting the muscles constituting the abdominal wall. It being found that openings so made tend to keep themselves closed spontaneously for the reason that any intra-abdominal pressure results in putting the muscles on a stretch lengthwise, which results in their fibres becoming approximated more closely than when no pressure is exerted. These procedures as far as the lower quadrant of the abdomen are concerned, resolve themselves into two, namely, the operation of Battle, which consists in slitting the rectus sheath over the centre of the rectus muscle, pulling the muscle toward the median line; making a corresponding opening in the back wall of the sheath, thus giving access directly to the parietal peritoneum. The other is the well-known MacBurnie or gridiron operation.

I will now run over a few of the important points concerning the anatomical configuration of the lower portion of the abdominal wall.

First I will call your attention to the fact that the external oblique muscle arises from the outer and lower surface of the lower eight ribs by eight digitations. From this origin the fibres arising high up pass downward and forward to terminate in the aponeurosis, which aponeurosis becomes a part of the sheath of the rectus muscle near the middle line. Below the umbilicus, we might say that the aponeurosis does not blend with the sheath until the linea alba is reached. The lower fibres pass almost vertically downward to be inserted in the anterior half of the outer lip of the crest of the ilium, the anterior superior spine of the ilium, etc.

The internal oblique muscle arises from the outer half of Poupart's ligament, from the anterior two-thirds of the middle lip of the crest of the ilium, and from the lumbar fascia.

The fibres arising from the outer half of Poupart's ligament pass downward and inward to terminate in the conjoined tendon. The other fibres pass upward and inward, terminating in the aponeurosis.

The aponeurosis of this muscle extends for the entire length of the rectus muscle. Along the outer border of the rectus muscle, throughout its upper three-fourths, it divides into two layers, one of which passes in front of and the other behind

the rectus muscle, to blend with the aponeurosis of the external oblique and transversalis muscles.

The line of junction of the aponeurosis of the external oblique and the aponeurosis of the internal oblique is upon the outer margin of the rectus muscle, at the upper part of the abdominal wall; but below the umbilicus the line of junction is in front of the rectus muscle and approaches the linea alba. The posterior lamella of the aponeurosis blends with that of the transversalis muscle, thus forming the upper three-fourths of the sheath of the rectus muscle.

The transversalis muscle arises from the outer one-third of Poupart's ligament, the anterior two-thirds of the inner lip of the crest of the ilium, the lumbar fascia, and the inner surface of the lower six costal cartilages. All the fibres of the transversalis muscle with the exception of those which arise from Poupart's ligament pass transversely inward, and is inserted by its aponeurosis into the linea alba, crest of the pubis and the iliopectineal line. The aponeurosis in its upper three-fourths passes, with the posterior layer of the aponeurosis by the internal oblique muscle behind the rectus, while the lower fourth passes with the undivided portion of the aponeurosis of the internal oblique muscle, to be inserted into the linea alba. A stratum of aponeurotic fibres does pass behind the lower one-fourth of the rectus, but it is much thinner than the posterior wall of the upper three-fourths of the sheath, the sudden diminution in the thickness of which produces the semilunar fold of Douglass.

The Deep Epigastric Artery arises from the external iliac artery immediately above Poupart's ligament. It passes upward and inward in the extraperitoneal fat, or between the peritoneum and transversalis fascia, toward the semilunar fold of Douglass, just below which it pierces the transversalis fascia and enters the sheath of the rectus abdominis muscle. It runs upwards between the rectus and the posterior wall of its sheath, about midway between the borders of the muscle, finally ramifying in the muscle and anastomosing with the superior epigastric artery.

I have gone somewhat at length into this matter, for the reason that it seems to be the general impression that the external and internal oblique muscles, and the transversalis aponeurosis were blended together and inserted into the linea semilunaris. Anatomically considered there is no such

structure as the *linea semilunaris*, except as an external mark indicating the border of the rectus in the living subject, when the abdominal muscles are strongly contracted.

To recapitulate, you find below the umbilicus the external oblique aponeurosis is attached to the *linea alba*, leaving the sheath of the rectus almost entirely free. The lower half of the internal oblique aponeurosis is free one-third the distance across the rectus sheath.

The aponeurosis of the transversalis passes almost entirely behind the rectus as far as the semilunar fold of Douglass, from there down almost entirely in front of the rectus.

Returning to the consideration of the operations in this region, I would state that the operation of Battle which gives perfect results anatomically is seldom used for the following reasons:

(a) It is too near the median line for most operative conditions.

(b) It does not provide for drainage, nor can it be made to do so.

The operation of MacBurnie, which is ideal for uncomplicated cases, has the following drawbacks:

(a) The extreme length of the operative wound is limited by the distance from the anterior superior spine to the edge of the rectus.

(b) The wound cannot be enlarged easily, except by the incision of Weir, which I shall speak of in a few moments.

(c) The wound even enlarged by the Weir incision is not usually suitable for suppurative cases, because it tends to close spontaneously.

The modification of Weir consists in separating the fibres of the internal oblique and transversalis, opening the sheath of the rectus, pulling aside the muscle, together with the deep epigastric artery, which at a point opposite the anterior superior spine is either in the rectus muscle or lying loose in its sheath, and extending the separation of the fibres of the muscles as far as the middle line of the rectus by a transverse incision of both anterior and posterior walls of the sheath. In so doing we are still separating, logically, the fibres of the aponeurosis of the muscles, which run across the rectus sheath and across the line of the rectus muscle and not vertically, as is generally supposed.

For the last three years it has been the custom in the wards

of the West Philadelphia General Homœopathic Hospital to operate all cases of appendicitis, suppurative or otherwise, by this method. We have further modified the incision of Weir where this procedure gave insufficient room for operation or drainage, by extending an incision vertically downward from the end of the Weir incision for a distance of from one to two inches if necessary. This latter procedure has been followed in some twenty cases of suppurative appendicitis with unqualified success.

DISCUSSION.

DR. STEWART: It is rather a hard paper to discuss, simply because he has described the main method of making this incision; and I think most people who have had very much experience in operating have about come to the conclusion that there is not so very much difference between methods, between incisions and the matter of the operation. I want to say, first, that this particular operation is entirely new to me; and while it seems to be an ingenious incision, I don't see its advantage over some of the old-time incisions. I think perhaps I am not the proper person to discuss this paper, for the reason that I am so very fond of the incision made in the rectus muscle. Of all the incisions that are made in the abdominal cavity, that is the one I am most partial to; and my reason therefor is that so very much of the contents of the abdominal cavity can be arrived at through this incision, and very many times when we operate we find conditions that we did not expect to find, and we can extend our incision either up or down; and through this incision we can do pretty much anything that can be done in the abdominal cavity.

If you are going to drain, if it is your practice to drain all these cases, then this operation I think is a very good one; and I can see that it will give a great deal of room. Then there is another thing to be said about this operation: in the doing a secondary suture it would seem from the description that it would be a very good incision to do a secondary suture; in other words, you have the strong shreds to sew together, and you would think a good, firm abdominal wall; but feeling as I do about the matter of drainage, and being as partial as I am to the incision slitting the rectus muscle, why, I could not become as enthusiastic over this or the MacBurnie incision as many are.

BREAST TUMORS AND THEIR TREATMENT.

BY

DEACON STEINMETZ, M. D., PHILADELPHIA.

MANY persons, women especially, having noticed nodules in the breast, fail to consult a physician until the hitherto almost minute lump has so developed that it has become visible to the

naked eye, and is causing some discomfort, and possibly pain. The family physician being consulted, will perhaps advise some local application and internal medication, without any result whatever. These tumorous masses go on increasing in size, oftentimes through irritation, or traumatism, developing from an originally benign state into a malignant condition, in which case the prognosis is generally unfavorable.

Tumors are divided clinically into two great groups, the simple or benign, and the malignant. A simple or benign tumor is one which, as a rule, grows steadily, or, having attained a certain size, remains stationary. It consists of tissue approximating closely in structure to some normal adult tissues, and is generally surrounded by a distinct capsule, out of which it can be completely shelled, for there is no infiltration of surrounding parts. After such removal it does not recur locally, and secondary growths in glands or more distant parts do not result from it. It interferes with health only mechanically, unless some accident, as inflammation, occurs in it. Tumors of the adult connective tissue type generally pursue this course, and may reach a huge size.

A malignant growth, on the other hand, generally grows rapidly and tends to enlarge continually. It consists of tissue which is markedly typical; is, as a rule, surrounded by no capsule, but progressively infiltrates the surrounding tissues; after apparently complete removal, recurs, and, whether removed or not, secondary growths are common in the nearest lymphatic glands or in distant parts, or in both. Though the patient is often in excellent health at the appearance of the tumor, he sooner or later wastes, loses strength rapidly, and becomes very anemic, and cachexia is produced. This is due to many causes—to removal from normal tissues of nutriment required for the active growth of the tumor cells; perhaps to the metabolism of the latter, pouring abnormal excreta into the blood; to pain and anxiety; often to profuse discharge and septic absorption consequent upon ulceration; occasionally to actual interference with the ingestion and absorption of food. The more rapidly and the more completely a tumor produces these results, the greater the malignancy. Even growths of the same class vary much in these respects, and different classes do so still more. Though in a high degree characteristic of cancers, the purely clinical term "malignant" must be distinguished from the pathological term "cancerous," which implies a specific

structure in the growth, to which it refers. Sarcomata are often quite as malignant as cancers. The rate of growth is of great diagnostic and prognostic significance. The more rapidly a tumor increases in size, the greater proportion of its cellular elements. Metastatic growths indicate the extremely malignant nature of a tumor. These are found early in carcinoma, for the lymph-glands in the vicinity may be involved before metastases in distant organs can be detected. Sarcomata may develop in the breast, although it is more uncommon than carcinomata. Carcinoma is very common in the female breast. The uterus and the stomach are the only organs affected more frequently. In women carcinoma of the breast stands second in frequency. The frequency of carcinoma of the breast is directly related to functional activity, because the mammary gland is intimately associated with the sexual apparatus. As a rule, enlargement of the lymph-glands does not take place until after the tumor has existed for twelve or eighteen months. The arm should be placed close to the chest for the purpose of examining the axilla, so as to relax the pectoral muscles. You should always examine along the lower margin of the pectoralis major, and high up in the axilla, and in the clavicular region. If the patient is suffering with pain in the arm, it is fair to presume that the glands are involved, because this symptom is produced by pressure upon the brachial plexus. I wish to mention here that metastatic growths next in frequency to the breast are found in the liver.

In diagnosing breast tumors, the first question to decide is whether they are benign or malignant. The most important considerations are the age, the location of the growth and whether or not the growth is adherent.

Carcinoma is more common in women over forty years of age, though there are a number of cases occurring much younger. The period of greatest liability to cancer of the breast is about and after the menopause. Cancer, though affecting all parts of the breast, is more often found in its axillary than in its sternal half, and the upper outer quadrant is affected more frequently than the lower. That portion of the gland directly behind the areola is next in point of frequency to be involved.

Benign tumors, on the other hand, are more frequently found in the sternal region. The fact of greatest diagnostic importance in a tumor is the degree to which it is movable. A

growth which is not adherent to the skin and is freely movable is not as a rule cancerous. If, on the other hand, a tumor has caused retraction of the nipple or dimpling of the skin, it is generally cancerous. About ten per cent. of the cases of cancer of the breast, in its early stage, cannot be recognized clinically, therefore every growth from the breast should be examined microscopically.

Treatment.—There have been any number of suggestions offered for the cure of tumors and also cancerous tumors of the breast, such as local applications of all descriptions, and the X-Ray. These are all futile, and the only treatment that has given the best results in this class of cases, is the thorough removal of the tumor, and excision of the adjacent structure. It is very important to operate a case of carcinoma of the breast early, even in cases that are clinically doubtful, and you should expose all tumors for the purpose of diagnosis, when carcinoma cannot be absolutely excluded. The surgeon should no more hesitate to make an exploratory incision to determine the nature of a tumor in the breast, than in the case of obscure abdominal tumors. Cysts of the breast are often malignant, and excision of the entire cyst wall, as well as the surrounding tissue, is necessary, to insure extirpation of the disease. The safest and best way is to remove the most suspicious part of the growth, along with the surrounding structure; then cauterize the wound with the actual cautery. I believe the danger of distributing cancer cells can be prevented only in this way. Operation upon the breast for cancer and cleaning out the axilla are not especially dangerous. The death rate is about five to seven per cent. Cancer of the breast never gets well of itself, and the value of other methods of treatment is extremely doubtful. A permanent cure can only follow operative interference. There have been several operations devised for the removal of breast tumors by different surgeons. These all depend upon the character of the tumor—whether it is benign, multiple or cancerous. If a tumor is benign and freely movable, we lift up the breast, and at its attachment to the chest wall, make an incision, and by dissection, remove the tumorous mass. Then by sutures, close the incision, thus restoring the contour of the breast. If there are benign multiple tumors, then the complete removal of the breast, or the commonly called elliptical or dinner plate operation is preferable. As to the removal of cancerous tumors of the breast, we have several

operations, namely: the Warren, by Dr. Warren, of Boston University; Halsted, Rodman and Mayo; the last mentioned are simply modifications of the Warren. The choice of operation depends largely upon the size of the tumor, the amount of lymphatic involvement, amount of breast tissue and the elasticity of the skin. Where there is decided lymphatic involvement of the axillary glands, the Warren operation is preferable. This consists, after thoroughly cleansing the breast and surrounding tissues as in other operations, of making an incision about 4 inches long from the coracoid process of the humerus along the inner border of the biceps muscle, through skin and superficial fasciæ, turning down a flap, and by careful dissection, cleaning out all axillary glands, being careful not to injure the blood vessels and nerves in the axilla. Continuing your incision from the coracoid process, make an elliptical incision going through the pectoralis major and minor muscles close to the clavicle and down to the ribs, completely removing the entire breast, dissecting from above downward—being careful not to manipulate the glands or tumorous mass any more than necessary, as often the cancerous juices from the glands and tumor infect other surfaces and set up new foci of development. After complete hemostasis, bring the arm to the side of the chest and approximate the edges of the wound by suturing, making a stab wound in the axilla for the introduction of drainage. If the tissues will not offer enough elasticity, it will be necessary to make an incision through skin and fasciæ, a little distance from the original wound or else the use of sliding flaps or later skin grafting. Some surgeons still make use of the elliptical incision or dinner plate operation and have had very good results, being able by retraction and dissection to remove a greater portion of the lymphatic glands from the axilla. Other operators claim that no incision should be made down the arm, as this may interfere with its use. These operators advise cutting obliquely through the pectoralis major and minor muscles, close to the clavicle, down to the rib, and then using the remaining portion or stump of muscles as a retractor, they are able to dissect out the axillary glands, as in the operation of Rodman and Mayo.

In closing this paper, I would say the best treatment is the complete removal of all tumors of the breast, whether they be benign or malignant. Do not wait until the tumor has fully developed and there is lymphatic involvement, in which the

prognosis is unfavorable, but operate at once—as soon as they are recognized, and diagnosed as tumors, by the physician.

DISCUSSION.

DR. GAY: I think we ought to show our appreciation of Dr. Steinmetz's consideration of this important subject by saying something, even if the time is short. It seems to me that we agree with him heartily upon the early and thorough obliteration of all tissues in these suspicious cases. Still, it is a deplorable fact that in spite of our advances in pathology, we are not able to tell (to come right down to it) whether the growth is malignant or not malignant. We had, for instance, a melanotic sarcoma—it was so declared after careful pathological examination—with glandular growths in the groin; we took those out, expected the lady to die in three months. It is now two years, and it never came back. On the other hand, I have in mind two cases of very mild malignant growths in the breast—of one diagnosed absolutely non-malignant—which inside of three months after operation (the operation was not a thorough one, because the growth was declared non-malignant)—she had a metastasis of the stomach and died a very miserable death in a short time.

SECRETARY GRAMM: Dr. Steinmetz says the value of other methods of treatment is extremely doubtful—the permanent cure can only follow operative interference. That expresses the attitude of the mind of most surgeons—that surgery is the only method of curing certain conditions, and they absolutely forget the facts that have become history in regard to treatment of disease. The removal of what is palpable and visible is unquestionably the indicated treatment; but to say that the patients are limited to that, and that the value of everything else is doubtful, I think is a mistake.

THE TREATMENT OF FRACTURES OF THE FEMUR.

BY

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“THE Treatment of Fractures of the Femur” presents certain problems that have proved difficult to work out, in my experience, with the use of the forms of apparatus as ordinarily carried out. The reason why deformity and shortening so frequently follow this fracture is to be found in the fact that it is practically impossible to thoroughly immobilize the limb without causing so much discomfort and restraint that the treatment becomes unbearable. Also, that with the exception of children, it is very difficult to apply sufficient traction to fully overcome overriding of the bones, especially when the

fracture is markedly oblique. It is the object of this paper to discuss briefly the management of some of the more common fractures of this bone.

I. FRACTURES OF THE NECK OF THE FEMUR.

In children this injury is rather more frequent than has hitherto been supposed, and is at times overlooked, being regarded as a contusion or sprain. This is not to be wondered at, as the fracture is almost always a green stick one, or impacted and the immediate disability is not absolute, many of these patients being able to walk to some extent. It is only when the late deforming and crippling coxa vara shows itself that the attendant awakens to the realization of the nature of the injury.

In children a severe, and often direct injury, is followed by incomplete loss of function and quick recovery, and later, as weight bearing is resumed, by a progressive crippling deformity. A radiograph showing both hips is invaluable for diagnosis, and the condition calls for immediate and energetic treatment.

Whitman reduces by abducting the limb to its limit and then forcibly increasing the movement until the shortening of the limb and elevation of the trochanter is overcome. The limb is encased in plaster of Paris in the abducted position. Later, a hip splint should be worn for several months, to guard against yielding of the callus.

It has occurred to me that double vertical suspension may be of service in agreeably overcoming the bending of the femoral neck in this fracture; although it may be difficult to correctly gauge the right amount of traction and the length of time it should be used, in order not to cause too much straightening and produce a coxa valga. In cases of definitely formed coxa vara, where the deformity is marked, and the function crippled, improvement, and often a complete cure, can be effected by the performance of a subtrochanteric osteotomy, either linear or cuneiform, and correction in the abducted position, as described above.

In young adults fracture of the femoral neck is usually close to the trochanters, and often the latter are further comminuted or crushed by penetration into them of the upper fragment. Under these conditions actual loss of bone takes

place by the impaction, the angle of the femoral neck is altered, there is widening of the trochanters, injury to muscular, and capsular attachments, and more or less distortion and deformity will result in spite of the use of any form of treatment, no matter how thoroughly and carefully it may be carried out. The problem confronting us is not that of obtaining boney union; as it will surely take place, if the physical condition of the patient is favorable; but that of correcting displacement, and retaining the normal mechanical construction of the shaft and neck. Absolute immobilization of the fracture cannot be obtained, even with the application of the most efficient fixation hip splint, as the upper fragment cannot be acted upon by any apparatus, and the necessary care of the patient, with its unavoidable moving of the trunk and pelvis causes motion at the fracture and not at the hip joint, until after union is well advanced. Still for all practical purposes efficient immobilization can be carried out by the use of the method which I shall describe further on. Much of the angular deformity and crowding inwards of the trochanters can be prevented by the use of the lateral traction, as strongly recommended by Maxwell. For this purpose a band is passed around the upper part of the thigh and fastened to a rope, which is led over a pulley at the side of the bed, and a weight of 8 or more pounds hung thereon. By raising the pulley above the level of the bed, upward and outward traction can be obtained which is still more efficacious and comfortable. Indeed, lateral traction can be advantageously used in any fracture of this bone, to influence displaced fragments, thus overcoming angular and lateral displacements by graduated traction exerted directly upon them; a form of treatment admirably perfected by Bardenhauer, but overlooked by most surgeons.

Care should be taken not to allow too early use of the limb, as the callus is liable to yield, and a good primary result ruined by the formation of a late coxa vara. After all apparatus has been removed, the patient should be instructed to walk about with two crutches, or if more efficient protection is required, a hip splint must be worn for at least three months, and better six.

It is not the purpose of this paper to enter into the treatment of fracture of the neck of the femur in the aged, as this injury has deservedly received so much attention, that it is universally familiar, and I have nothing new to offer. Suffice it to say

here that the treatment of these cases differs from all other fractures of the femur and particularly those occurring in adults and robust individuals, in that in the aged and infirm the first consideration is the saving of life, and the treatment of the fracture is rather a secondary matter, while in the young and robust, life is not at stake and more severe and confining methods can be adopted in order to insure firm union, and as perfect a functional result as can be expected. Yet in spite of all the drawbacks, and contrary to former teaching, we should try for union in every case. The old style sand bags and adhesive plaster extension method will give uniformly good results, or the more modern and more complicated method of fixation by the hip splint, as recommended by Scudder, is surer, and if skillfully applied should yield better functional results, at less inconvenience to the patient, and in a shorter time.

2. FRACTURES OF THE SHAFT OF THE FEMUR.

These present three displacements to be overcome by apparatus. Overriding, angular and rotary of the lower fragment. The rotary displacement is corrected by supporting the lower fragment and the leg, and keeping them in the proper position, i. e., toes pointing heavenward, until union is firm. Overriding is corrected by traction and counter traction, and angular displacement by splints, pressure and the abducted position. The apex of the angle is usually directed forwards and outwards, and the deformity is no doubt caused mainly by the powerful adductors acting on the lower fragment, aided by the flexors in pulling it upwards and tilting the knee inwards. Theoretically the adductors would be relaxed by carrying the limb towards its fellow, but practically the deformity is reduced by *abducting* the limb, thus bringing the lower fragment in a line with the upper one. When the fracture is well up in the upper third of the shaft, the upper fragment in addition is flexed and abducted by the psoas-iliacus, and outwardly rotated by the glutei muscles, so that the lower fragment must also be flexed and externally rotated, as well as abducted, in order to have the bone in a straight line and on the same plane. For the maintenance of this position there is no better appliance than the Hodgen suspended splint, which in addition furnishes also traction to any amount desired. A combination of the Hodgen splint, with Buck's adhesive extension will be found

very satisfactory. In its absence, the single incline plane can be used, although it has proved somewhat disappointing in my experience on account of the loss in the efficacy of the traction that it entails. Hodgen's suspended splint is becoming more and more popular because of the comfort it is to the patient, and the ease of its adjustment. It can also be used for fracture of the lower third, where it makes much better traction than the double incline plane, and is certainly much more comfortable and much safer. The double incline plane is very difficult to adjust properly, as the thigh piece is apt to be either too long or too short for the individual under treatment, and if effective dangerous pressure may be made on the popliteal space. I recall one case treated in the Hahnemann Hospital of Philadelphia of a young man in whom the sharp end of the upper fragment had penetrated the skin just above the patella. This fracture was a very oblique one from below upwards and backwards, and we had much difficulty in retaining it with the double incline plane. Pressure sores developed in the bend of the knee, so that finally the apparatus had to be discarded in favor of plaster of Paris.

All other fractures of the shaft in the adult are best treated with traction in the extended position, and fixation. Fixation obtained by the use of two sand bags alone will not give uniformly good results, for it is imperfect, and does not prevent angular or rotary deformity. The patient is apt to turn the pelvis toward the injured side, thereby producing a rotary displacement of the upper fragment upon the lower, and the inner short sand bag is pressed against the injured thigh by the other limb, and tends to push the fragments outward, causing or accentuating an angular displacement outward and forward. Much better results have been obtained in my hands by discarding the sand bags entirely, and using a long external splint. This should extend from the axilla to beyond the foot, and is secured in place by three broad swaths, one around the leg, one around the thigh, and one around the trunk. A cross piece may be used at the lower end to render it more firm and prevent outward rotation. The application of the complete apparatus is as follows:

A temporary dressing is used while the different parts of the appliance are prepared. When everything is ready the patient is placed under the influence of a general anæsthetic, and complete muscular relaxation is obtained. The leg and thigh are

then shaved, washed with alcohol and the skin well dried. The limb is then carefully examined and deformities reduced. Any abrasions should be covered with small sterile dressings. Buck's adhesive extension appliance is then put on, and the limb bandaged up to the fracture line. Coaptation splints are then fitted over the anterior and lateral surfaces of the thigh and secured in place by bandage or adhesive, or, better yet, straps. A posterior straight splint is then put on, extending from the upper third of the thigh to the lower third of the leg, and so padded in the popliteal space that the knee is slightly flexed, i. e., the position it normally assumes when lying on the back. Lastly, the long external splint is put on and everything made tight. Enough weight should be used to overcome shortening; this will be found to be from fifteen to twenty-five pounds, and should be lessened after the first week. In order to make the traction more effective a Volkman sliding rest can be put on the foot, or an extra board passed under the posterior straight splint and a roller placed between the two. If the patient is found to constantly slide down the bed, in spite of the elevation of the foot, shoulder straps should be used to secure him in place.

This apparatus is allowed to remain as described except for the changing of the traction weights, and necessary adjustments, until four weeks have passed. It is then removed, the skin attended to and careful measurements made. It is then reapplied for three or four weeks longer, with the choice of discarding the long external splint, if it proves too irksome, for a sand bag. At the end of this period union is firm, if it is going to take place at all, and there remains nothing to be done, excepting to protect against injury and yielding of the callus. A plaster of Paris cast or a hip splint is used, and the patient is not allowed to bear any weight upon the limb until the three months are up, and is not to discard the crutches until six months are up. Callus has been known to yield from weight bearing up to six months, so that in order to protect ourselves and the patient from the chagrin of a late deformity it should be the rule not to allow full weight bearing on the limb until the six months are up, however excessive the time may seem.

This apparatus, with the exception of the coaptation splints, and other modifications to suit the case, is used for fractures of the femoral neck in adults and robust subjects. It cannot be used in the aged or infirm, as it is too irksome and confining,

and is in these cases discarded for the sand bags and traction method previously mentioned.

In children under twelve years of age by far the best results are obtained by the use of vertical suspension, plus coaptation splints. I have discarded the use of all other form of treatment in favor of this, and in every case that I have used it have obtained perfect results. In fact, if vertical suspension could only be applied to adults, I feel that oblique fracture of the shaft of the femur would lose all its seriousness, and shortening would be the exception rather than the rule as it is at present. If properly carried out it is impossible for the patient to get away from the traction and countertraction. Asleep or awake, the steady pull is there, and as a result not only is overriding completely corrected, but angular displacement as well. In addition the hip flexors and rotators are relaxed by the flexion of the thigh, so that the higher the fracture the better the position of the fragments and the greater the traction. Theoretically vertical suspension is contraindicated in fractures just above the knee where the fragment is acted on by the calf muscles and displaced backward, but I believe that practically it will work out right, and while I have not used it, nor am aware of its ever being used for this fracture, yet I will have no hesitation in trying it at the first opportunity.

The little folks bear the position well, are content, sleep well and are easily cared for and kept clean. The only trouble to be expected will be in the slipping of the adhesive plaster, and the irritation that it may cause to the skin of the leg and thigh. As a rule in three to four weeks' time union is so firm that the limbs can be lowered, and a plaster of Paris cast applied. Later, if the fracture has been an oblique one, a circular seat splint is fitted which allows of locomotion, and transfers the weight of the body from the limb to the pelvis. For most cases it is better to suspend both limbs, though single suspension will answer in the older patients. As a rule the support should be a fixed one, making sufficient traction to raise the pelvis free of the bed, so that the hand can be easily passed under it. If desired a pulley and weight apparatus can be fitted up for the fractured limb, so that the traction can be graduated and made more direct. In a case of very oblique fracture in a five-year-old boy recently treated, I used pulleys and weights for the fractured limb and found the method very convenient. The traction can be gradually decreased as union progresses, much

to the comfort of the patient and to the ease of the surgeon's mind, relieving him of the anxiety always present of the possible production of a coxa valga in the young and pliant bone from excessive and prolonged pull.

One case treated last winter, an unrecognized fracture of the upper third in a three-year-old boy, gave a very gratifying result. There was union with $1\frac{1}{2}$ inches shortening when the case fell into my hands. I re-fractured the femur, and used vertical suspension. Firm union was obtained with a terminal shortening of only half an inch. This was entirely compensated for, so that the boy six months later was walking without a limp.

No attempt at describing or discussing fracture beds, and the nursing of these cases will be made, as these details are familiar to all, excepting to say that in these progressive days fully equipped fracture beds can be hired for a reasonable figure, thus doing away with the inconvenience that some of us have had to put up with in handling these cases in private houses.

DISCUSSIONS OF PAPERS PREVIOUSLY PUBLISHED.*

DISCUSSION OF DR. PALEN'S PAPER ON "BEZOLD'S MASTOIDITIS."

(See Hahnemannian Monthly, January, 1911, page 1.)

DR. H. S. WEAVER: I have not seen this paper, but I certainly want to congratulate the society and the writer of this paper upon the paper. So far as I know, there has been very little written upon the subject of Bezold's abscess within the last five years; and it certainly has been an interesting paper to me, while I listened to Dr. Palen reading it.

I had the misfortune, a few years ago, of seeing one particular case of Bezold's abscess, illustrating the cases that Dr. Palen recited in his paper, with the complication of a sub-periosteal abscess over the mastoid cells; and also a Bezold's abscess the lower opening of which occurred just above the nipple on the affected side, which extended down through the neck in underneath the clavicle, and opened just above the nipple; so that in operating that case we had to draw it from below. This patient, before I operated, made me promise that I would not open the mastoid cells at that operation, stating that if we found it necessary, we could open it at some future time; but I simply opened the tissues over the mastoid, making a circular incision, and evacuated a large quantity of pus; and as I had told

* *Note.*—As the result of an oversight the discussions of the following papers were not published in connection with the papers as usual.—Ed.

the patient I would not open the mastoid cells until later, I found the large opening (the normal opening of the external plate) large enough to admit a good-sized probe into the mastoid cells—so much so, that the mastoid cells, after we had opened it, could be washed out and the patient made a very slow but a good recovery. After the external opening had been made and the pus drained from there, they would not give the consent to have the external mastoid operation done; so we did the best we could, under the circumstances, and washed, by a small syringe, the mastoid cells, and kept this wound open, draining the pus from below, and it took us months of treatment; but the patient finally made a good recovery. I again want to congratulate Dr. Palen upon his paper.

DR. SPEAKMAN: It is certainly refreshing to hear a clear paper, once in a while, that is based on practical experience, and which is intelligible to the average person. Dr. Palen has not given way to the prevailing and crying tendency on the part of some essayists to go into intricate translations of foreign writers and deal out to us such a scientific paper that the reader is bewildered and we have grave doubts as to whether the aurist himself knew what he was writing about.

I think that we all draw one practical point from this paper on Bezold's abscess, and that is, that the profession is being educated to recognize the importance of exact diagnosis in ear conditions, and that these cases and other cases, in fact, every discharging ear, is a menace to life. I think the members of the profession are realizing that a discharging ear is not an indication that the system is getting rid of the necessary discharge, and that pain and swelling and tenseness over the mastoid call for instant operative interference, or instant judgment at least. They are always candidates for operation.

I remember hearing Dr. Thomas say, one day, that he had never opened a mastoid in his life that he did not feel amply justified afterwards in having opened it. But that he had failed, or neglected, or postponed operation in many cases in which subsequent operation proved that he should have gone ahead.

DR. ISAAC SHALLCROSS: I don't know that there is much I want to say, except I want to back up what Dr. Speakman has cited. I believe in a rational paper that can be understood by the ordinary man; and I am delighted that we have had that kind of an ear paper to listen to to-day.

DR. E. L. NESBIT: Dr. Palen's excellent presentation of the subject calls to my mind a case which was operated by me on the 27th of last December, which I believe, from Dr. Palen's description, to have been one of Bezold's abscesses; and I arise simply—not having made a clinical data to report the case—simply to call attention to a case which occurred in an infant six months old. Whether that is exceptional, or whether I am misled in the diagnosis, remains to be seen further.

CHAIRMAN PALEN: It is rather impossible, according to Bezold's statements, for a Bezold's abscess to occur in an infant of six months old; because, at that stage, there are no mastoid cells here. In a child of a few months, you have the glandular condition developed, and the glands will break down. And, of course, that will occur in a middle ear condition. Bezold himself points to that—the difference between the glandular condition occurring at the tip and the Bezold's abscess—point-

ing out that the glandular condition as a rule you can feel the movement of the glands under the fingers; whereas, the Bezold's abscess is brawny and hard; you cannot outline the tip of the mastoid; it has become covered; whereas, in the child of six months you would hardly find any mastoid at all, because in a child of six months it is not yet developed.

DR. S. S. MANN: What is the minimum age when these mastoid cells are forming?

CHAIRMAN PALEN: We are not apt to find a full development of the mastoid until fourteen years; although I have seen a very thorough development of the mastoid in a child of five years; but the full development of the mastoid, with the thinning of the inner wall of the tips; that is, the anatomical points that are necessary for the formation of these Bezold processes. As the development goes on, you have muscular development; you have the thinning of the inner plate.

I don't mean to say that you don't find cells of the child's mastoid; but you don't find the development necessary for Bezold's abscess; because that occurs with the advancing years—the thinness of the inner plates and the large tip cells; you have those gradually developed, and it is rather exceptional in a child of six or seven to find very large cells. You have often lots of cells, but not very large.

DR. S. S. MANN: My case was in a child of about one year of age; but there was no opening of the mastoid that I could find.

DISCUSSION OF DR. BIERMAN'S PAPER ON "CONGENITAL BLINDNESS."

(See Hahnemannian Monthly, January, 1911, page 12.)

CHAIRMAN PALEN: This paper is now open for discussion. I would like to say this about these elder child's eyes—that they have not developed in size to the slightest degree since I saw the case first; and I think that was two and one-half years ago; and you will notice the eyes are sunken, considerably. The other little patient I saw last year at the same time, I think. This child's mental development is as bright as can be. Mrs. Bierman told me the mother of this child said it recognized my voice as soon as I began to speak and mentioned my name. That is rather remarkable that that should have happened, with all the others who were talking here, showing the child's brain is developing; and why this eye is not developed, is a question.

DR. WARE: I would like to state one thing more—that the fundus, so far as I first examined the child, was normal in both eyes of this elder child. I saw last year in the smaller child there was some pigmentation; no specific history of direct origin.

DISCUSSION OF DR. STITZEL'S PAPER ON "CORNEAL ULCERATIONS."

(See Hahnemannian Monthly, January, 1911, page 15.)

DR. RAIGUEL: I think that we cannot pay too much attention to the etiological conditions, or the etiological factors. Investigations both here and abroad tend to show that corneal ulceration is more and more depend-

ent on constitutional conditions, and particularly tuberculosis, as playing an important part. They are also using tuberculin in a great many of the clinics, in the treatment of ulcerations of the cornea, and with great result, not with the methods that are usually employed in the treatment of tuberculosis, but a minim of the old tuberculin is used. These injections are made intradermally. I feel in all corneal ulcerations we should have a thorough examination of the patient made by a competent examiner, and thereafter decide upon our treatment.

DR. SPEAKMAN: There are two reagents that I have found effective in checking the progress of serpiginous ulcer, or any ulcer that tends to spread over the cornea, or to become deep, or an ulcer that is foul; and that is, the application of boiling water directly to the cornea; not in quantity, and, it must be applied to the cornea only. It seems heroic; but it causes no pain to the patient, unless we are careless enough to drop the hot water on the lid, or on the cheek. I have the boiling pan of hot water as close to the side of the patient as possible, and have it boiling, actually boiling; then with a cotton dip probe, having two or three of them resting in the pan, you pick it up quickly and flick off any surface water and apply it as quickly as you can transfer it from the pan to the eye right on the cornea. If the patient is not too nervous, it is not necessary even to use a speculum. If, however, you have any difficulty with spasm, instil a drop of atropin and cocaine. I have found it even useful in the superficial form of ulcerated cornea, if you are careful not to drop the water on the cheek or on the lid of the patient.

Another application is that of pure alcohol, used at the base of the corneal ulcer. There we use cocaine as a preliminary, and apply the alcohol by a small cotton probe, not using a large amount, simply sufficient to thoroughly spread over the surface of the ulcerated part and bring that into contact.

DR. WARE: There was one thing in the Doctor's paper that appealed to me very strongly; and that was, to get at the cause of it. I think that is primary. Whether it may be of the rheumatic diathesis, or whatever it may be, whether of foreign causes, whether it is an error of refraction. I had a case recently that came to me that had been treated for something like six months; and it was a case of a miserable looking ulcer—a young woman who was well developed, and a perfectly healthy looking specimen of womanhood; and I could not see any cause for the thing there—why she had had this ulceration there at that time. She had never had any trouble before in her life of the eye; and yet here was this marked ulceration. The only cause I could find there was a matter of refraction. Glasses were prescribed and worn, and inside of two weeks there was a very marked improvement; the eye cleared up as quickly as possible, without any local treatment whatsoever, only keeping it protected by the glass. I didn't even give her boric acid solution; I let her go.

DR. BROWN: I believe the best treatment for corneal ulcers is one not recognized by the profession at large, and that is by the use of high frequency currents. In a case I treated in the past week (I finished, I think, last Saturday night with the last treatment), the case had been treated by another physician for three weeks with high frequency currents; the eye showed no remains of the ulcer. The patients don't seem to think that they

would get used to this line of treatment, but they get better quicker. I don't mean to say that I would not use all the other remedies along with it; but it seems to have quicker and better action.

DR. SPEAKMAN: I felt that I ought to say, in regard to that hot water, that it cannot be successfully applied with the eye-dropper and pipette, because the water will squirt out.

DR. STETZEL: There was one thing that I was in hopes would be brought out, and that was about removing any resulting corneal scar. In the country I find a great many of those cases after they have existed for a long time before I get to see them. Of course, when you have a corneal scar, they are very anxious to get rid of it; if you don't clear up the scar so that they can't see it, they think the treatment has not been thoroughly successful.

Another thing is—the thought that I tried to bring out and lay emphasis on was—to discover the cause; and that was the main reason for my dividing the ulcerations into two different varieties. There is no doubt that all of the second varieties are due to constitutional causes. I remember seeing a case of a young lady, likely in her thirties, that came to me with an ulcer, one of those deep marginal ulcers, about the size of a split pea—one in which I was almost afraid to open the eye—afraid the iris would rush out. I applied iodine in her case, and the result was excellent. I cannot tell you what the condition was at the end of three days; the disappearance of that ulcer was simply marvelous; I have never seen anything like it since. I did not prescribe any remedy; but there was great danger of the perforation of the cornea, and I got after that with iodine, and the result was marvelous.

DISCUSSION OF DR. HEIMBACH'S PAPER ON "LATEST APPROVED METHODS TO MEET SOME ABNORMALITIES IN PREGNANCY AND LABOR."

(See Hahnemannian Monthly, January, 1911, page 21.)

DR. THEODORE J. GRAMM: In these cases of *placenta previa*, if, of course, you can perform without eversion, the case is handled most admirably and successfully; but some of these cases of *placenta previa* start before the cervix is dilated, when, in other words, it is only beginning to dilate; and it is in fact the most difficult class of cases where the implantation is covering the opening of the uterus most fully that the hemorrhage is likely to be very early; because the hemorrhage starts when the cervix dilates. Now, then, of course, the cervix then is dilated. Now, I have found, in those cases, that the best way to handle them is to use one of the dilating rubber bags; and that makes pressure upon the bleeding part and dilates the uterus at the same time; then, of course, when it is possible to introduce the hand, then, of course, the case may be delivered.

I would really like to say something of puerperal eclampsia; but it is such a tremendously large subject that I won't touch upon it at all.

In regard to the homœopathic remedy for those ineffective labor pains that simply distress a woman and wear her out and wear every one about her out by the flowing and ineffectiveness of the whole procedure of labor,

I have found that podophyllum administered every few minutes until some effect has been produced has been very prompt in its action.

DR. MERCER: In regard to examination after labor, sometimes it is a pretty hard thing to decide whether you have some of the decidua remaining; because in some cases the decidua is much bigger than others; and it is a question of doubt.

In one case I asked a patient to bear down after I had delivered her, and she strained down and the placenta came down and not a sign of a membrane on it. I just thought I would watch her and wait; and the second day the membranes came out and the woman went on and recovered without a sign of temperature or anything.

DR. BAKER: In my experience, I have never had a case of infection where I used my hand to thoroughly empty the uterus; I lately had three cases of infection where I allowed the membrane to remain. When I feel satisfied that my hand is as nearly aseptic as I can make it, I invariably see that the uterus is empty; and I think it is a safer plan.

THE TREATMENT OF PLACENTA PRÆVIA.—From a critical review of the present methods of treating placenta prævia Gussakow (St. Petersburg) reaches the conclusions that while the membranes are intact every method which tends to excite uterine contractions is to be avoided. The tamponade is to be abandoned since it does not stop the bleeding, while on the other hand it favors infection. In 66% of cases wherein it is used, fever arises. Rupture of the membranes frequently brings about cessation of the hemorrhage in partial placenta prævia. If rupture of the membranes proves ineffectual, the metreurynter should be used by placing it within the membranes. Metreuyse is a more conservative procedure and is more likely to result in the birth of a living child than version according to Braxton Hicks. In total placenta prævia it is better to perforate the placenta than to loosen the same. The proper time to intervene in placenta prævia will be determined by the conditions found by an accurate diagnosis. In the clinic it will depend upon special indications. The strictest antiseptis must be maintained in the treatment of placenta prævia. In order to prevent the occurrence of air embolism special care must be exercised that in the abdominal and pelvic vessels no negative pressure arises and that the air in the genital canal does not acquire an increased pressure. In all statistics dealing with placenta prævia, the complete and partial varieties should be kept separate, as well as the mortality of each of these. The prognosis in general in cases of presentation of the afterbirth is serious, and is very much so in the complete variety. Cæsarian section is only to be considered in the complete variety where the patient is anxious under all circumstances to have a living child.—*Monatsschr. f. G. u. G.*, Vol. 32, 245.

CONTRIBUTED ARTICLES

CASE TAKING AND PRESCRIBING.

BY

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It is essential to success in prescribing that no thought whatever should be given to the remedy until after one has finished the making of a careful and exhaustive examination of the patient.

The case to be considered is that of a baby girl under two years of age. Physical examination shows the following:

1. *Drowsiness.*
2. *Cyanosis, lips and nails bluish.*
3. *Wing motion of alae nasi.*
4. *Eyelids half open during sleep.*
5. *Mouth open during sleep.*
6. *Rattling respiration. Coarse rales.*
7. *Loose rattling cough.*
8. *Chest wrapped in cloths saturated with camphorated oil.*
9. *T. 104 3-5. P. 168. R. 81.*

On being asked if there were any other symptoms that she had noticed, the mother replied in the negative.

The questions confronting us now are—is this sufficient upon which to base a prescription with any degree of accuracy, and are we justified in taking for granted that every discoverable symptom has been elicited?

The answers to which are, that this is not sufficient for accurate work, and that it is criminal negligence to rest contented with such results, while other methods at our command have not been exhausted in the endeavor to secure a more complete symptom picture.

The only symptoms so far elicited that are in any way uncommon and peculiar are, "*Mouth open during sleep*;" "*Eyes half open during sleep*," and "*Wing motion of the alae nasi*"—the last being a very common symptom in cases of respiratory obstruction and therefore of very doubtful value in this particular case.

By a careful and systematic cross-examination of the mother, being careful not to ask leading questions that would suggest particular answers and covering every anatomical part and function of the body from the scalp to the toes—the following additional symptoms were discovered:

10. *Grinding teeth during sleep* (two days).
11. *Thirstlessness, with high fever* (one day).
12. *Aversion for water* (one day).
13. *Starting in sleep* (one day).
14. *Desire to be held* (one day).
15. *Diarrhoea, yellowish stool*, for ten days preceding onset of lung symptoms, ceased after several days' treatment with castor oil and paregoric.
16. *Catarrh, yellowish green*, for week or ten days preceding present illness—not now.
17. *Sleeping on back, with knees drawn up and spread apart*, for over a year.

Having now secured as complete a symptom picture as is possible, we proceed to the next or second stage in the process of making the homœopathic prescription, that of analyzing and grouping the symptoms. In other words, we get better acquainted with the symptoms and decide which are uncommon and individualistic for the case.

Reviewing the list of seventeen symptoms in this case, we select the following as belonging to this category:

Sleeping with eyes half open.

Mouth open during sleep.

Grinding teeth during sleep.

Thirstlessness during fever.

Aversion for water.

Starting in sleep.

Desire to be held.

Of course it is essential that the remedy should cover the common symptoms as well as the uncommon, but if there are enough of the latter to work with, it will usually not be necessary to bother with the first, much time being saved thereby, since the remedy covering the uncommon symptoms will almost invariably cover the common symptoms as well.

Symptoms 15, 16 and 17 are omitted from consideration because they antedate the present illness and are therefore not a part of the *status praezens*.

Having now finished the second stage of our work, we will

take up the last stage, namely, the selection of a remedy the peculiar symptoms of which are most similar to those of the patient.

Using *Kent's Repertory*, we will compare our symptoms with the larger rubrics, to begin with, instead of comparing them with the smaller sub-rubrics, which, though they correspond accurately with the wording of certain of the symptoms, are not as reliable as the larger rubrics. Therefore, the rubrics "*grinding of teeth*," "*mouth open*" and "*aggravation during sleep*," etc., etc., will be consulted, each symptom being split into its component parts and each part compared with its corresponding general rubric.

Provided a drug produces *grinding of teeth* and *aggravation during sleep*, it is not essential that it should have produced the two symptoms in combination, and failure to realize this fact will often result in failure to find the similimum.

Since there are quite a few drugs common to the larger rubrics just mentioned, which are not included in the smaller sub-rubrics, it would be foolish to exclude these remedies from consideration.

P. 251. *Eyes half open.* Agar., Amyg., Ant. T., Apis, Ars., Art. v., Bapt., BELL., Bry., Cadm., Cann. I., Canth., Caps., Cham., Coff., Colch., Coloc., Croth. h., Cupr., Dig., Ferr., Ferr. M., Ferr. p., Gels., Hell., Hydr-ac., Ip., Kreos., Lach., Laur., Lyc., Merc., Morph., Nat. m. Op., Phel., Phos., Ph. ac., Plb., Podo., Rhus, Samb., Stram., Sul., Ter., Verat., Zinc.

P. 436. *Grinding teeth.* APIS., Ars., Art. v., BELL., Bry., Canth., Cham., Coff., Colch., Croth., Cupr., Hell., Laur., Lyc., Merc., Morph., Op., Phos., Plb., Podo., Stram., Sulph., Verat., Zinc.

P. 1361. *Sleep, aggravation during.* Apis., ARS., BELL., BRY., Canth., CHAM., Coff., Colch., Cupr., Hell., Laur., Lyc., MERC., OP., Phos., Plb., STRAM., SUL., Verat., ZINC.

P. 531. *Thirstlessness.* APIS, Ars., Bell., Bry., Canth., Colch., HELL., Lyc., Op., Phos., Stram., Sul., Verat.

P. 82. *Starting.* ARS., BELL., BRY., Lyc., Op., Phos., STRAM., Sul., Verat.

P. 414. *Mouth open.* Bell., LYC., OP., Phos., Stram., SUL.

P. 10. *Desire to be carried.* Lyc., Sul.

P. 484. *Aversion for water.* BELL., Lyc., STRAM.

It will be noticed that the rubrics "*Desire to be carried*" and "*Aversion for water*" are used last, instead of first, which

would have made the work much easier, since we would have had fewer drugs to consider by beginning with the smaller rubrics.

The reason for this is that containing so few drugs, arouses a suspicion that they might possibly not be complete.

On this account Belladonna, Opium, Phosphorus, Stramonium and Sulfur should not be excluded from consideration until further thought has been given the matter, such as, for instance, a comparison with the *materia medica* as well as a comparison with the less important rubrics previously ignored—as follows:

- A. *Sleeping eyes open.* P. 251.
- B. *Grinding teeth during sleep.* P. 436.
- C. *Thirstlessness during heat.* P. 531.
- D. *Starting during sleep.* P. 83.
- E. *Mouth open during sleep.* P. 414.
- F. *Wing motion alae nasi.* P. 345.
- A. Bell., Lyc., Op., Stram., Sulf.
- B. BELL., Stram.
- C. Lyc., Op., Sulf.
- D. Bell., Lyc., Op., Phos., Stram., Sulf.
- E. Lyc., Op.
- F. Lyc., Phos., Sul.

The evidence so far seems to favor Lycopodium, and careful study of the different drugs in the *materia medica* confirms a verdict in favor of this drug.

While on this subject it may be advisable to demonstrate another method, although in the opinion of the writer, that just described is the easiest and most satisfactory in the long run, especially for the novice.

It is always worth while to be familiar with several methods in order that, when advisable in some exceptionally difficult case, one method may be used to check the other. Also it is sometimes possible to find the remedy by one method and not by another.

Fortunately, either of the two methods outlined in this paper will be successful in all but very rare cases, if conducted in a technically correct manner, which last includes a study and comparison of drugs showing up most prominently in the *materia medica* afterward.

For those not already familiar with it, the following method of using the *Pocket Repertory of Boenninghausen* is suggested.

(See articles by Dr. M. W. Turner in *Medical Advance* recently.)

Although this method is somewhat tedious when worked out completely, it can be made much easier by using the modification of the pocket repertory by the late Dr. H. C. Allen, in which the rubrics are each printed separately on slips of tough paper, which allows of comparing all together by placing them side by side on a table.

Another way to save time is by comparing only those drugs having a high rubrical valuation, eliminating the low rank remedies or those printed in plain type and italics. This is not technically correct, however, and can be done with safety only by an expert, owing to the risk of excluding the simillimum. This method will be illustrated also.

A knowledge of the elements of a symptom should be known to every one, especially when using Boenninghausen. They are:

1. *The location of the symptom*, as accurately fixed as possible.
2. *The character of the symptom*, color, odor, taste, physical appearance, kind of sensation, etc., etc.
3. *The time when better or worse*, morning, forenoon, afternoon, evening, before or after midnight; night or day; day of the week; month, season of the year; phase of the moon, etc., etc.
4. *The circumstances under which the symptom is better or worse*, position of body; heat or cold; rest or motion; asleep or awake; food, clothing, etc., etc.

After having elicited all the symptoms obtainable and having completed each symptom according to the above scheme, it is usually advisable and often essential to decide upon the symptom or pathological state around which the other symptoms revolve or from which they originate. It is necessary to make this distinction always, when possible to do so, in order to properly understand the case; and it is especially necessary to do so when using Boenninghausen, for the reason that we are always supposed to begin our repertory work with the symptom or symptoms in this particular locality.

The other symptoms not in this locality are classified as concomitants. In other words, then, the concomitants are the symptoms in other parts indirectly due to or associated with this principal condition, and they should be repertoried last.

This plan of Boenninghausen's is founded on common sense and should be adhered to as far as possible irrespective of the repertory used. It is hardly possible to do this with Kent because this work has but few general rubrics of location such as those found in Boenninghausen.

The order in which the symptoms should be used in this method is as follows, the numbers after each symptom referring to the page of the rubric:

Location of the ailment:

1. *Internal chest.* P. 124.

Character of symptoms: *Catarrhal inflammation of bronchi and alveoli.*

2. *Respiration oppressed.* P. 113.

3. *Respiration rattling.* P. 113.

4. *Respiration rapid.* P. 113.

Time and circumstances:

5. *Aggravation during sleep.* P. 300.

Concomitant symptoms:

6. *Sleepiness during day.* P. 242.

7. *Face bluish.* P. 51.

8. *Mouth open.* P. 55.

9. *Grinding of teeth.* P. 61.

10. *Thirstlessness.* P. 66.

11. *Aversion for water.* P. 68.

12. *Better being carried.* P. 311.

Symptom No. 12 belongs under circumstances *with worse during sleep*. It is used last because the rubric is very incomplete and of doubtful value. The following diagram well illustrates the method. For the sake of brevity only those drugs which are common to all of the first four rubrics are written out. The number following each drug is the total valuation for the first four rubrics. The number in each column shows the valuation for that rubric, the absence of the drug from any rubric being shown by a dash (—), as follows: (See page 295).

According to this diagram it would appear that Belladonna, having the highest valuation and being the only drug present in all the rubrics, was the indicated remedy, after all. However, it is not safe to rule out the other drugs on this basis alone. Numerical valuation is of relative importance only. Also many of the rubrics in this work are notoriously incomplete. The only way to decide, when in doubt, is by going

Rubrics	1	2	3	4	5	6	7	8	9	10	11	12	Totals.	Principal Remedies.
Aconite	3	2	2	16	3	3	2	1	..	..	..	..	25	Aconite, 25—4 rubrics.
Alumina	2	2	2	5	2	2	..	..	..	1	..	..	9	
Am. carb.	2	2	2	7	2	2	..	..	..	..	..	..	14	
Anacardium	2	2	2	9	2	2	..	..	..	..	..	..	12	
Ant. tart.	4	4	4	14	4	2	2	..	..	3	..	2	28	Ant. T., 28—3 rubrics.
Arnica	3	3	3	14	3	3	3	2	..	3	..	..	29	
Arsenic	4	4	4	14	4	3	3	..	..	3	..	..	29	Ars., 29—3 rubrics.
Belladonna	4	4	4	17	4	3	3	4	4	2	3	1	38	Bell., 38—all rubrics.
Bryonia	4	4	4	17	4	3	3	..	..	1	2	..	27	Bry., 27—3 rubrics.
Calc. carb.	2	2	2	12	2	3	3	..	..	1	..	..	18	
Camphor	1	1	1	7	1	3	4	2	..	3	..	..	20	
Cannabis-sat.	7	7	7	17	7	3	..	..	..	1	..	..	11	
Carbo-an.	2	2	2	8	2	2	..	..	..	1	..	..	12	
Carbo-veg.	1	1	1	13	1	3	..	1	..	..	1	..	19	
Causcicum	2	2	2	9	2	3	..	..	..	1	1	..	16	
Chamomilla	4	4	4	14	4	3	1	..	..	1	3	..	24	Cham., 24—4 rubrics.
Chelidonium	3	3	3	15	3	3	1	..	..	2	..	..	23	
China	2	2	2	14	2	2	3	..	..	2	1	..	22	
Cina	2	2	2	11	2	2	..	..	..	1	..	..	19	
Cocculus	1	1	1	10	1	2	4	..	..	2	..	..	15	
Cuprum	1	1	1	14	1	2	..	..	..	..	..	..	21	
Ferrum	9	9	9	9	9	1	3	..	..	1	..	..	11	
Hepar	4	4	4	14	4	2	3	..	..	1	..	..	24	Hepar, 24—4 rubrics.
Hyoscyamus	4	4	4	13	4	2	4	3	..	1	4	..	31	Hyos., 31—2 rubrics.
Ignatia	3	3	3	13	3	1	3	..	..	1	..	..	20	
Ipecac	2	2	2	15	2	1	4	..	..	2	..	..	24	Ipecac, 24—4 rubrics.
Kali carb.	3	3	3	12	3	3	..	..	..	1	..	..	19	
Lachesis	3	3	3	11	3	2	2	..	..	1	..	..	19	
Laurocerasus	1	1	1	11	1	3	..	..	..	1	..	..	15	
Ledum	1	1	1	10	1	2	..	..	..	2	..	..	15	
Lycopodium	3	3	3	14	3	1	2	3	..	1	1	..	26	Lycop., 26—2 rubrics.
Mercury	12	12	12	12	12	4	1	..	..	1	1	1	21	
Natrum carb.	11	11	11	11	11	2	..	..	..	1	..	..	17	
Natrum-mur.	2	2	2	11	2	3	..	..	..	1	1	..	20	
Nitric acid	2	2	2	9	2	3	..	..	..	1	..	..	14	
Nux vom.	2	2	2	15	2	4	4	3	..	2	4	..	26	Nux vom., 26—4 rubrics.
Opium	4	4	4	14	4	4	..	..	..	2	..	..	32	Opium, 32—3 rubrics.
Petroleum	15	15	15	15	15	4	..	..	..	1	..	..	10	
Phosphorus	6	6	6	6	6	2	1	..	..	1	..	..	25	Phosphorus, 25—4 rubrics.
Pulsatilla	15	15	15	14	15	4	3	2	..	4	..	..	29	Pulsatilla, 29—3 rubrics.
Sambucus	14	14	14	11	14	4	1	..	..	4	..	..	24	Sambucus, 24—3 rubrics.
Sepia	15	15	15	11	15	3	3	..	..	3	..	..	24	
Spongia	11	11	11	11	11	3	..	..	..	3	..	..	17	
Squills	10	10	10	15	10	1	..	1	..	1	..	..	15	
Stannum	1	1	1	1	1	1	..	..	..	2	..	..	18	Stram., 27—3 rubrics.
Stramonium	4	4	4	14	4	3	1	..	..	1	4	..	27	Sulfer, 25—5 rubrics.
Sulphur	4	4	4	15	4	4	..	..	..	2	..	..	25	

to the materia medica and carefully comparing the symptoms and general action of all of the high rank remedies with the symptoms of the patient.

Symptoms 9 and 12 are both *Lycopodium* symptoms, though not included in the Boenninghausen rubrics. The short modification of the preceding consists in using only those drugs with a high valuation in each of the first rubrics used. *The simillimum will usually be found among the high rank remedies of the rubrics of location and sensation of the principal ailment.* On the other hand, it is often a low rank remedy in the concomitant rubrics. On this account we will limit the selection in making up our initial drug list to those drugs which are printed in largest type or in black-faced type in so far as the first four rubrics are concerned. In the remaining rubrics, those of circumstances and association, we will use all drugs irrespective of the type in which they are printed:

Rubrics ... 1, 2, 3, 4	5	6	7	8	9	10	11	12	Totals.
Ant. T. 14	3	4	2	..	..	3	..	2	28
Ipecac. 15	2	1	4	..	..	2	..	..	24
Lycop. 14	3	2	2	3	..	1	1	..	26
Phos. 15	3	4	1	..	..	2	..	..	25
Puls. 14	4	4	1	2	..	4	..	..	29
Stam. 15	2	1	..	..	..	..	..	..	18

By this method there is always a possibility of excluding the *simillimum*. If failure results therefore, it will be advisable to work the case out by the extended method previously described.

The expert homœopathist studies his patient and elicits all symptoms with the most painstaking care, after doing which he usually knows the remedy to a certainty without needing to bother with the repertory except in unusually difficult conditions.

His ability in this line, however, is invariably the result of much hard work on the repertory and materia medica in some such manner as that just described, during the earlier years of practice, when he had more time and fewer patients. When he does need to use the repertory, however, he knows how to do it quickly, understands all the short cuts and how to take them with safety; and can repertory a case in one-tenth the time required by an inexperienced man. The moral of which is, that time spent in such work is well spent and brings a bountiful harvest.

It may not be amiss to reiterate that repertory work based

on an incomplete and imperfectly taken case is usually time wasted in so far as the selection of the simillimum is concerned. You can't prescribe correctly until you have the symptoms in their entirety.

Lycopodium was given to this patient in the 200th B. and T. potency, in water, a teaspoonful every two hours continuously for the first twenty-four hours, and afterwards during waking hours until the symptoms had entirely disappeared. Also the camphorated oil was thoroughly cleaned off and fresh clothing put on, for no remedy will act satisfactorily while the patient is constantly inhaling camphor.

The patient began to improve after the first dose; showed marked improvement on the day following, and the lungs had entirely cleared up on the fourth day after beginning the medicine.

In active serious acute diseases, drugs usually act best when given in medium potencies and in doses frequently repeated. Of course there are exceptions to every rule, and the action of remedies repeated in this way must be watched and if cessation of improvement or aggravation of symptoms supervene, *sac. lac* must be substituted at once.

It is a good rule to *never* change the method of giving a remedy while the patient continues to improve.

SOME INFREQUENTLY USED EYE REMEDIES.

BY

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(Presented to the Homœopathic Medical Society of the State of New York, February, 1911.)

IN contrast with empiricism, scientific therapeusis—homœopathy—enables one to select with confidence a remedy which has not previously been used for a given condition. Upon looking through the *Materia Medica* (Boericke's) the writer noticed eye symptoms in the symptomatologies of a number of remedies either little known, little used or associated with entirely different diseases. These are given here in the hope that some of these remedies may prove of value to the ophthalmologist and, incidentally, to his patients. Concomitants are necessarily omitted, but they should be studied.

Aesculus hippocastanum.—Eyeballs sore. Eyes heavy and hot, with lachrimation, *with enlarged blood vessels*.

Alumina.—Eyes feel cold. Lids dry, burn, smart, thickened, aggravated in the morning; chronic conjunctivitis. Ptosis.

Anacardium.—Pressure like a *plug* on upper orbit. Indistinct vision.

Antimonium crudum.—Eyes dull, sunken, red, itch, agglutinated. *Canthi raw and fissured*. Chronic *blepharitis*. Pustules on cornea and lids.

Artemisia vulgaris.—*Colored light produces dizziness*. Pain and blurring of vision; better, rubbing; worse, using eyes.

Asafetida.—Orbital neuralgia; better, pressure and rest. Iritis and intraocular inflammations, with boring, throbbing night pains. Syphilitic iritis. Boring pains in and around eyes. Superficial corneal ulcer with digging pains; worse at night.

Asarum.—Eyes feel stiff; burn; feel cold. Better in cold air or water; worse, sunlight or wind. Darting pains in eye after operation. (A. cepa.) Asthenopia.

Carboneum sulphuratum (Bisulphide of carbon).—Retinal congestion. Optic discs pale. Retinal veins engorged. Vision greatly impaired; everything seems in a fog. Color blindness.

Crotalus horridus.—Eyes very sensitive to light, especially *lamplight*. Illusions; blue colors. *Ciliary neuralgia*; tearing, boring pain, as if a cut had been made around eye.

Cyclamen.—Dim vision, worse on waking, with spots before eyes. *Flickering* of various colors. Sees countless stars. Diplopia. Convergent strabismus.

Euphorbium.—Eyes inflamed and agglutinated in morning.

Geranium maculatum.—Giddiness with diplopia; better, closing eyes. Ptosis and dilated pupils.

Grindelia.—*Pain in eyeballs*, running back to brain; worse, moving eyes. Pupils dilated.

Guaiacum.—Pupils dilated. Eyelids appear too short. Pimples around eyes.

Guarica.—Conjunctiva inflamed, swollen. Tearing pain in eyeballs; tension, forced out feeling. Objects appear gray, upside down. Eye symptoms alternate with diminished hearing. Eye symptoms have been verified. Chemosis and pterygium have been cured with this remedy.

Ichthyolum.—Eyes burn, red; worse, any change of temperature.

Ilex aquifolium.—Rheumatic inflammation of eye. Nightly burning pain in orbits. Symptoms better in winter.

Iodoformum.—Pupils dilated; contract unequally; react poorly. Diplopia. (Tubercular meningitis.)

Melilotus.—Eyes heavy; blurred sight; wants to close them tightly for relief. Neuralgia around eye and over right side of head and neck.

Mephitis.—Conjunctiva red; eyes hot and painful. (Pertussis.) Eyes pain from overexertion; blur; unable to distinguish letters.

Oleander.—Can see objects only when looking at them sideways. Eyes water on reading. Double vision. Sensation as if eyes were drawn back into head.

Onosmodium.—Strained feeling in eyes; worse, using eyes. Eyes heavy and dull. *Ocular muscles tense*. Pain in eyeballs between orbit and ball, extending to left temple. Muscular asthenopia. Headache from eyestrain.

Oxalic acid.—*Hyperesthesia of retina*. Severe pain in eyes, feel expanded. Worse, thinking of symptoms.

Oxytropis.—Sight obscured; pupils contracted, do not respond to light. Paralysis of nerves and muscles of eyes.

Platina.—*Objects look smaller than they are*. Eyes feel cold. Twitching of lids. Cramplike pain in orbits.

Ranunculus bulbosus.—Day-blindness (emeralopia, miscalled nyctalopia); mist before the eyes; pressure and smarting in eyes, as from smoke. Pain over right eye; better, standing and walking. Vesicles on cornea with intense pain, photophobia and lacrimation. Corneal herpes.

Saponaria.—Hot stitches deep in eyeball. Ciliary neuralgia; worse, left side. Photophobia. Increased intra-ocular pressure. Exophthalmos, worse reading or writing.

Sarracenia purpurea.—Photophobia. Eyes feel swollen and sore. Pain in orbits. Black objects move with the eye.

Solanum nigrum.—Pain over both eyes. Alternate dilatation and contraction of pupils; weak sight; floating spots.

Tabacum.—Dim sight; sees as through a veil. Strabismus. *Muscae volitantes*. "Amaurosis."

Theridion.—Luminous vibrations before eyes; sensitive to light. Pressure behind eyeballs. Throbbing over left eye.

Tilia europæa.—Sensation as of gauze before the eyes. Binocular vision imperfect. Of value in muscular weakness of the eyes.

Titanium.—Vertical hemianopsia: half an object only could be seen at once.

Trillium pendulum.—Vision blurred; everything looks bluish. Eyeballs feel too large.

Upas tiente.—Pain in eyes and orbits, with conjunctivitis. Dull sunken eyes. Styas.

Uranium nitricum.—Lids inflamed and agglutinated. Styas.

Usnea barbata.—Eyes feel as if they would burst out of their sockets.

Ustilago maydis.—Aching in eyeballs, with much lachrimation.

Vespa crabro.—Chemosis of conjunctiva. Erysipelatous inflammation of lids.

Viburnum opulus.—Sore feeling in eyeballs.

Viola odorata.—Heaviness of lids. Eyeball feels compressed. Flames before eyes. Illusions of vision; fiery serpentine circles. Choroiditis. Myopia.

Viscum album.—Double vision. Blue rings around eyes.

Xerophyllum.—Eyes painful as from sand, smart; difficult to focus for close work.

It is hoped that careful reports will be made of clinical verifications of any of these symptoms, giving the other symptoms of the patient for individualization. Particular pains should be taken to report each case in such manner that the reader will agree as to the diagnosis and be convinced that the relief is justifiably credited to the medicine; all changes in the patient's mode of living and all adjuvant treatment should be given, also the promptness and the permanence of relief. In other words, the report of a clinical cure should always be a *demonstration*, not merely an assertion, in order to make it of scientific value.

INCIPIENT CARCINOMA OF THE UTERUS.—Rubin has reported the study of three cases in the earliest stages giving the histological findings, and concludes that the routine and complete pathological examination of parts or whole of the uterus, removed for whatever cause, may often furnish the first evidence of a latent carcinoma. The pathological diagnosis of carcinoma of the uterus in the preclinical stage is possible. The important criteria of malignancy in these early cases lie not so much in the relation of the cell nests to the stroma, the depth or extent of epithelial invasion or evidences of surrounding inflammatory changes, as in the intrinsic morphology of the epithelial cells.—*Amer. Jr. Obs.*, Vol. 62, 668.

ALBUMINURIA.

BY

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(Read before the Medico-Chirurgical Society of Central New York, June, 1910.)

THE presence of albumin in the urine has long been considered as indicative of kidney inflammation, but we are not justifiable in diagnosing all cases of albuminuria as Bright's Disease, for all the accompanying symptoms must be thoroughly analyzed, also persistent examinations of the urine made to note the presence of other pathological indications of this dreaded disease.

As far back as 1836, when Bright, from whom the disease derived its name, discovered the coincidence of a hypertrophy of the heart, with the accompanying symptoms of alterations in the kidney structure, other important changes have been discovered by clinicians, all of which must be considered towards the diagnosis. It behooves us therefore to get, in the words of the homœopath, "the totality of the symptoms" for our diagnosis, as well as for the indicated remedy.

It is not my intention to burden you by discussing the unrefuted facts of the association of albumin with a distinct kidney lesion, but the object of this paper is to discuss chiefly those cases of albuminuria without distinctively a kidney inflammation, referring, however, to the pathological findings towards the close of the paper.

First of all, what is Albuminuria? It is the presence in the urine of a coagulable albumin (proteid) which has escaped, chiefly, through the cortex of the kidney. Albuminuria may be classified as: (a) False. (b) True.

(a) False is where the urine as secreted by the kidney cortex is normal, and the albumin is contributed lower in the urinary tract, either as an inflammatory product, blood or lymph.

(b) True is that due to disturbance of the renal epithelium, especially the glomeruli in the cortex of the kidney, and not the blood capillaries outside of the glomeruli.

A further classification, for obvious reasons, I wish to subdivide albuminuria into: (a) Physiological. (b) Pathological.

In the former we deal with a proteid (albuminous) in the urine, which otherwise is normal. In this condition its appearance is transitory, and usually due to severe muscular exertion which is unusual to that individual. Exposure to cold, cold baths, nervous strain, or an unusually heavy proteid meal are to be considered as agents causing transitory albuminuria. Failing to recognize these facts, physicians are misled in giving the proper prognosis or caution to the patient of the seriousness of the kidney inflammation.

The causative agent, chiefly "physical overexertion," was first noticed in the army when raw recruits, after a forced march, showed albumin in the urine. Statistics showed that as high as 50 per cent. of these soldiers presented an albuminuria, but with no other indications of disordered kidneys. Further reports showed that foot ball players, bicycle riders and other athletes, in fact, any individual overtaking the system by physical exertion, are apt to show albumin in the urine, but transient in type.

Taking these facts, very interesting to me, into consideration, I determined to make some clinical tests to better myself and at the same time determine as far as possible how much extra stress can be brought upon the kidneys of persons living in this locality before they showed a pathological lesion.

In order to accomplish my purpose, I turned to our local institution, selecting ten healthy looking foot ball men, gaining their co-operation, I was prepared to begin my tests. I selected foot ball men, as I considered this form of exercise as the nearest to occasion for overexertion of any sport at that time of the season.

Clinicians found that practically every player after a game showed a temporary albuminuria lasting three or four hours, but after that time the urine appeared normal. Considering these facts, I was then prepared to make my test, by first examining the urine of these ten men, which I found to be normal. I then examined the urine passed upon their return to the dressing room. In nine of the ten men I found albumin, and in six I found casts of the granular type; in one or two instances I found hyaline. By the next morning the urine of seven men was normal and in the remaining two it had disappeared by noon. To further investigate, I examined the urine passed after a cold shower. This showed more albumin than before, which to my mind showed that a cold shower was a causative

factor in producing albumin in the urine. A post-season examination of the urine of eight of the men showed it to be normal again. The other two were not interested enough to bring me a sample of urine for examination.

I wish to return, for just a minute, to the appearance or perhaps increase of albumin after a cold shower. Experienced observers have discovered that a three-minute bath in water at 54-56 degrees will cause a temporary albuminuria, while in water at 68 degrees it required fifteen minutes to produce a reaction sufficient to produce albumin in the urine.

To conditions capable of producing a temporary albuminuria I desire to recall the hearty proteid meal before mentioned. Farmers or men active about the house who indulge in such meals are apt to show albumin in the urine, especially if the specimen is taken a few hours after, the appearance is very apt to mislead you unless you keep in mind this important fact. In this connection let me caution to always obtain a full twenty-four hour specimen in these hearty men before attempting to reach a diagnosis.

Another type of the so-called physiological albuminuria is that which occurs at adolescence. This appearance of albumin occurs between the ages of 14-18, and soon disappears at the age of 20 or so. Its appearance at this time seems very plausibly explained by investigators in this way: "The renal insufficiency relative to the growing organism takes place, with the physical growth and activity, together with an instability of the vasomotor centers, and as a result the albuminuria occurs without any pathological change existing."

In order to thoroughly investigate this type of albuminuria and under conditions not in accord with the surroundings necessary for a child at this age, Lommel, a German clinician, examined 587 factory workers between the ages of 14-18 and found 18.9 per cent. of them showing an albuminuria once or many times and in varying amounts, usually intermittent as far as he could examine. In these cases no sediment appeared, but in some hyaline casts were seen.

Of 130 of the same class of workers, but over 25 years, only one showed albumin. This striking contrast was so marked that it emphasized the importance of the appearance of albumin at adolescence and how it may be mistaken for a pathological rather than a physiological process, but working in surroundings which favor the former. In considering this type the

subject of heredity must be thoroughly gone over, for it is very important towards the diagnosis. Again, when we look into the conditions under which factory workers labor, it is not strange that the "renal insufficiency, to the growth and physical activity of the organism" takes place, it is a wonder it is not worse. I dare say many of you can recall having had such cases, between these stated ages, where you have congratulated yourselves on having perfected a cure of Bright's Disease, but we must bear in mind that it might have disappeared spontaneously at 20 years or so, even though not treated.

I do not wish to be interpreted as saying that in albuminuria of adolescence there is not a kidney lesion, for disease may develop at this age as well as at any, but we must make other clinical tests to qualify in our diagnosis of a distinctive lesion existing, including repeated urinary examinations, both chemical and microscopical. It has been my custom, in addition to the analysis, to make repeated blood pressure examinations at different hours and under various conditions of surroundings. Persistently high pressure, with the other physical signs, has been of material aid in my diagnosis, as well as my prognosis.

I wish to speak briefly of the more salient points of the pathological conditions existing in kidney inflammation. As a foreword: All varieties of Bright's Disease are accompanied by an albuminuria at some time during its progress. It is very interesting to note that there is no parallelism between the amount of albumin and the severity of the nephritis, but it is a recognized fact that the more acute the attack the larger the percentage of albumin. In all cases it is therefore more important to obtain the percentage than the total amount of albumin. Even in the percentage it is well to bear in mind that it varies inversely with the amount of urine, seldom reaching more than two per cent., although there is on record a case with as high as five per cent. In considering the amount various factors play an important part, namely, diet or indiscretions in diet which must be fully considered, for they help to determine the severity of the nephritis. At this point it may be of interest to you to know that the erect position favors the output of albumin. Naturally, to obtain the best results, we must insist upon our patients being flat on their back in bed.

In kidney lesions having large amount of scar tissue, the amount of albumin is small, so it cannot have much bearing on the severity of the nephritis. On the other hand, cases present-

ing markedly favorable symptoms may show a persistently large amount of albumin. You can clearly see how confusing it is to try to make a diagnosis or follow the progress of a case by the appearance or quantity of the albumin in the urine, for it really offers little from a diagnostic standpoint, or prognosis, for the disappearance in no way indicates a lessening of the inflammation, while a persistency does not necessarily indicate further progress of the nephritis. In case the albumin is due to blood, then of course the various fluctuations will have more prognostic value. We must, therefore, rely on our urinalysis for the type of the nephritis, if we are able to differentiate, as well as to the severity of the involvement.

Of the tests for albumin, the Nitric Acid contact is still most universally used. The Horismoscope, a very valuable little instrument, gives us the most delicate contact we can get. Doubtful cases, in the absence of the Horismoscope, are tested by the potassium ferro cyanide. For the quantitative, Esbach's Reagent and Instrument is the best to date and for all clinical purposes sufficiently accurate.

SOMETHING MORE ABOUT *LATRODECTUS MACTANS*.—About twenty-one years ago Dr. Samuel A. Jones wrote a paper (which is preserved in *New, Old and Forgotten Remedies*) on "*Latrodectus Mactans*: A Suggested Remedy in Angina Pectoris." It was based on the symptoms described by Dr. Semple, of Virginia, as following the bites of the spider whose name heads the paper. The symptoms were closely similar to those of angina pectoris; they were from five cases and all bore a striking resemblance.

Wrote Dr. Jones: "In its physiological action the poison of *Latrodectus mactans* resembles angina pectoris vasomotoria—a purely functional derangement. The similitude of the physiological action to pure angina pectoris corroborates the accepted pathology of the latter condition, because the phenomena of *Latrodectus* poisoning were deduced from previously healthy organisms, and in pure angina pectoris there is no pre-existent organic change occasioning the attack."

During the two decades that have passed since the publication of this paper not many cases have been reported in which this remedy was employed, but every one that has been reported confirms Dr. Jones' reasoning that in *Latrodectus mactans* we have a homœopathic remedy for pure angina pectoris.—*November Recorder*.

EDITORIAL

RURAL SANITATION.

THE problem of rural sanitation is one of the greatest that confronts public health officials in this country to-day. After a large expenditure of money and a great deal of work on the part of physicians and scientific men, the sanitary conditions of our cities have been vastly improved; but in the rural districts the conditions as yet have scarcely been touched. It has been accepted almost as an axiom that living in the country was much more healthy than residence in a large city, but a careful study of the reports of the State Boards of Health show the fallacy of the prevalent idea as to the superiority of country life as compared with city life as far as the mortality rate is concerned. For example, the entire city of New York during the year 1910 had a mortality rate of 16.1, slightly less than the average mortality rate in the rural districts; and the greatest mortality rate occurred in the smallest borough in the State (17.1). When we further take into consideration that deaths under four years of age are almost five times as common in New York City as in the rural districts, it will be seen that the mortality rate among adults must have been higher in rural districts in order to compensate for this high infant mortality in the city.

It requires very little thought in this matter to convince one that the cause of the condition above enumerated lies in the fact that the unsanitary conditions of living in rural districts fully offsets the natural advantages available in the country.

Perhaps the greatest advantage that the country enjoys over the great city is an abundant supply of uncontaminated air; in fact, *it can be said that the only impure air to be found in the country is in the homes of those who dwell there.* A large proportion of the better educated people in the cities have learned the advantages of thorough ventilation of their homes and of their sleeping apartments, but a casual visit to

the ordinary farm-house in winter will soon convince one that the gospel of fresh air has yet to be preached to the inhabitants of rural districts. The old-fashioned coal stove, throwing off its quota of poisonous gases into the living room of the family, the rags stuffed in every crevice about the windows and about the doors to preclude the possibility of any fresh air getting in, not to mention the pollution of the air by tobacco smoke and the odor of food, etc., is a familiar sight to all of us. It is very questionable whether, from the standpoint of good sanitation, the inhabitants of such a room have any advantage whatever over the cave dweller of prehistoric times. When we ascend into the bed-room conditions are almost as bad, except that here we have to deal with damp, stagnant air instead of the heated, vitiated atmosphere of the living-room. We recall visiting a family who were patients of a country physician a few years ago, and upon entering the living-room, in which the customary rags in the windows, etc., were present, we found an infant suffering from a severe case of diphtheria. Sleeping in the same room were four other children and the parents. No amount of remonstrance could induce them to alter the arrangements of the house, and in fact their poverty made this impossible, so that it was not surprising to find beginning infection in three of the supposedly well children. This condition occurred within fifty miles of the city of Philadelphia. There is no greater service that the physician practicing in rural districts can render his patients, especially those of the younger generation, than to thoroughly imbue their minds with the idea that such conditions must be done away with if their health is to be preserved, and that Nature has bestowed upon man no greater blessing than pure, wholesome, fresh air. More modern methods of heating the houses must be made use of, and proper arrangements made to permit the pure air to find its way, especially during the winter months, into the living rooms and into the sleeping apartments.

If possible, even a more dangerous factor, from a sanitary standpoint, commonly found in rural districts is the old-fashioned "out-house." This structure is usually conveniently located near the well, and from the rear may be seen a stream of liquid feces which attracts hogs, chickens and other domestic animals to seek for what they may find suitable in the way of food. Add to this the swarm of flies, mosquitoes and other

insects which frequent it in the summer, and from thence make frequent excursions to the dining-room and other parts of the house, and we have about as fruitful a source of disease as can well be imagined. It is well known that the common fly is not at all particular as to where he wipes his feet, and these insects, laden with the noxious micro-organisms of the out-house, quickly contaminate food, milk, water, and the vessels in which these substances are served to the family.

It would seem that the mere mention of this subject to an intelligent family would be sufficient to cause its abolishment, and yet the out-house has persisted for years in spite of its well-recognized unsanitary influence, and in all probability will continue to exist for a great many more years.

There are those who may consider this picture over-drawn, but no less an authority than Dr. P. C. Garrison, in a recent address before the Philadelphia Academy of Medicine, has stated that in the southern part of our country about 75 per cent. of the negroes and poor whites are infested with intestinal parasites, the important factor in the spread of which is the unsanitary out-house.

The question as to how this condition shall be overcome is by no means as simple as might appear at first thought. It is necessary that the fecal matter shall be kept in a non-porous retainer until the various pathological bacteria, spores, eggs or parasites, etc., shall have had time to die. It is also essential that the fecal matter shall be protected from flies and other insects which infest these places. The erection of a sanitary privy complying with these conditions is at present a rather expensive matter, and yet the out-house will remain a menace to the life and health of persons living in country districts until a practical and moderately expensive method of erecting said structures can be devised.

The question of a pure water supply is also an important rural problem. In the majority of instances the household receives its water supply from surface wells. During rainy weather particularly it is not uncommon to see the water in these wells markedly contaminated with drainings from the barnyard and out-house, and while this is only evident to the eye in rainy seasons, it is fair to presume that careful analyses of the water would show that the contamination is more or less constant in all seasons. The importance of impure water as a cause of disease is so well recognized that it would be

superfluous for us to pursue this matter any further, and the high mortality rate of typhoid fever in the rural districts may almost invariably be traced to this source. So well recognized is this fact that the Boards of Health in most of our large cities annually publish warnings to city dwellers who expect to spend the summer in the country to take every precaution in order to provide themselves with uncontaminated water for drinking and cooking purposes.

Time does not permit us to pursue this subject in all its details. We have simply endeavored to point out a few of the more important factors involved in this question, and to call the attention of the profession to the important part that they must take in the solution of this very pressing problem. The first step in its solution will be to impress upon those who dwell in rural districts the dangers to health and life that result from the unsanitary conditions in which they live. When these have been changed and the unhealthy surroundings of the ordinary rural home have been altered by the adoption of modern sanitary methods, then may we hope to see the mortality rate in rural districts decrease and those who dwell there enjoy the full benefits of the healthful agencies that Nature has placed at their disposal.

G. H. W.

CLINICAL RESULTS FROM THE USE OF SALVARSAN IN THE TREATMENT OF SYPHILIS.

A LITTLE more than a year has passed since the medical world was thrilled by the statement that Prof. Ehrlich had discovered a remedy which in a single dose would eradicate syphilis from an infected individual. Since that time the remedy has been applied in thousands of cases all over the world, and we are in a position to partially understand what the practical results from the use of this substance have been.

It seems quite certain that Ehrlich's ambition to destroy all of the infective organisms by a single dose—the so-called *Magna Therapia Sterilisans*—has not been realized. The percentage of relapses occurring after the use of Salvarsan is quite high, some writers stating that it is as high as 50 per cent., and it is probable that many of the cases that have so far shown no symptoms since their injection will do so after

a longer period of time has elapsed. As a complete eradicator of the disease, therefore, we are compelled to feel that it must be looked upon as a failure. In the treatment of parasymphilitic affections, such as locomotor ataxia and paresis, its effects have been found to be of little or no value. On the other hand, it has unquestionably been proven that salvarsan has a very marked influence upon the *treponema pallida*, and that it is very effective in controlling the symptoms of syphilis in a large majority of cases. It seems to be of particular value in cases of malignant syphilis and in cases that are refractory to treatment by mercury. This alone makes it a valuable addition to our therapeutic armamentarium in dealing with this disease.

In judging of the value of salvarsan it is necessary that we should compare it carefully with the two traditional remedies for syphilis, namely, mercury and potassium iodide. While there are a variety of opinions on this subject, disinterested clinicians who have had the most experience in dealing with syphilis state that in the average case of moderate severity the symptoms are controlled quite as promptly by mercury, when properly administered, as by salvarsan, and Fox and Trimble state that a comparison of the permanence of the action of salvarsan and mercury has given them the impression that a thorough course of mercurial treatment gives much more lasting results than one or perhaps two injections of salvarsan.

Undesirable results of the salvarsan vary according to the method employed. The subcutaneous injections of the neutral suspension have been practically given up, as they have been found to be less effective, painful, and at times may cause a local necrosis of the tissues. The intramuscular injection of an alkaline solution is more efficient but extremely painful. It does not seem to be attended with any special danger. The intravenous injections are not painful, and perhaps, when used with the strictest antiseptic precautions, are the most satisfactory method of administering the drug. Some fatal cases have been reported after its use in this way, but the advocates of the remedy claim that these were the result of improper technique or of the employment of the remedy in unsuitable cases. There can be no question, however, but that the use of an intravenous injection of this substance is open to many sources of danger unless skillfully and carefully employed. While it is, of course, true that no ultimate state-

ment as to the place and value of salvarsan in the treatment of syphilis can be made at this time, we feel that the following deductions are warranted in the light of present clinical data:

First. That salvarsan is undoubtedly an effective remedy in causing manifestations of syphilis to disappear.

Second. It seems to be of particular value in malignant syphilis and in cases that are refractory to mercury.

Third. That relapses are frequent and that the unpleasant or dangerous results following the administration of the remedy render experience and caution necessary in its use.

Fourth. That it will probably not replace the use of mercury in the treatment of syphilis except in certain selected cases.

G. H. W.

NEURASTHENIA.—Prof. Raymond, of Paris, before his death, reported an interesting case of neurasthenia: A young working girl, 21 years old, entered the *Hospice de la Salpetriere* in a great state of suffering. She complained not only of gastro-intestinal troubles—painful digestion, nausea on waking in the morning—but above all of great fatigue and a pressing headache at the vertex (*douleur en casque*). She is an emotional patient, daughter of a habitual drunkard, and she has witnessed many violent family quarrels. Moreover, she asserts to be in love, and a series of moral shocks acting upon a soil already prepared by heredity, explains the origin of her present condition. This patient is at the outset of a state of neurasthenic depression. If not attended, she may fall the victim of a psycho-neurosis. Actually she has a tendency to hypochondriac mentality. But the form of the neurosis may be according to occasional circumstances. The treatment should be essentially based on the re-education of the will.—*Journal des Praticiens*.

TREATMENT OF BONE SYPHILIS BY "606."—A patient suffering from diffused periosteal lesions received, without success, for a year the cacodylate of mercury, the benzoate of mercury, hectine and hectargyre. Notwithstanding this treatment, he presented very painful osseous gumma. An injection of "606" was sufficient to cause in eight days the disappearance of the various osseous manifestations.—*Debove and Chiray*.

According to Dr. de Beurman, a patient was cured of syphilitic gumma by a single injection of "606," but a relapse of the gumma occurred some time after. This shows the relapses are possible notwithstanding the treatment by "606."—*Societe Medicale des Hopitaux*.

GLEANINGS

THE CURABILITY OF CARCINOMA.—A surprising number of well authenticated cases of malignant disease are now on record where the disease has ceased to grow or has disappeared after some palliative treatment or after incomplete removal. Bretschneider (Leipzig) says that exact observations have shown very plainly that under certain though rare circumstances our organism is able so to cope with cancerous foci which have remained after operation that the cases may be regarded as clinically cured. To this list of cases he adds another of a 53 year old woman affected by an ulcerating cancer of the cervix. The left parametrium was infiltrated and the uterus fixed. The corpus uteri was not enlarged. The case was treated by excochleation, the actual cautery and zinc chloride locally. The microscope revealed glandular carcinoma. Seven months later the patient reappeared at the clinic in a much better condition than expected and had gained in weight. The portio was found with a smooth surface though nodular, and within the cervical canal the tissues were friable. The parametric infiltration was much diminished and had become harder, the uterus being somewhat more movable. The same treatment was repeated. Her third appearance at the clinic occurred in four months on account of hemorrhages. Her general condition had much improved and she was no longer cachectic. Within the pelvis there was so much improvement that the abdomen was opened. The peritoneum was found covered with nodules and the iliac glands enlarged and cancerous on microscopic examination, so that the operation was discontinued. At this time the cervix was subjected to the same treatment as before. Two years after the first operation the patient showed good nutrition, was fat, and seemed in good health. Hemorrhages had ceased. Locally the cervix was atrophied and smooth; the corpus uteri atrophic and movable; laterally resistance on palpation still somewhat present. The patient claimed to feel quite well.—*Arch. f. Gyn.*, Vol. 92, 107.

THEODORE J. GRAMM, M. D.

PUERPERAL AUTO-INFECTION.—This subject has been a matter of most serious interest for all who are concerned in the scientific phase of obstetrics ever since Semmelweis showed that the commonest source of infection is external to the woman's body. Since then many have maintained that almost all infections arise in this way. Since, however, we are able by strict antiseptic precautions, including the use of rubber gloves, to exclude infection from this source, a certain revision of opinion becomes necessary. It is true that the most serious infections are due to pathogenic micro-organisms introduced from without, but in a certain number of instances they do not arise in this way. The micro-organisms inhabiting the genitalia have, therefore, received most careful study. The work of Zangmeister goes along these lines, particularly in comparison with clinical

results, and he deduces from the observations presented that an etiological significance in puerperal infection is ascribable to the staphylococci and especially to the streptococci which exist in the vagina of the parturient, and this causal significance is not small, since a relatively high percentage of febrile cases are due to an auto-genic, or an auto-infection. Such infections, as opposed to heterogenic or external infections, undoubtedly pursue a milder course than the latter; or, in other words, among 100 cases infected from without there will be a much larger proportion who will be seriously ill than among an equal number of cases of auto-infection. Such cases of auto-infection may for all become serious, and even terminate fatally, as the author's observations have shown. These views are entirely confirmed by some independent studies by Schmidt and also by Kronig, who has long devoted attention to the subject.—*Arch. f. Gyn.*, Vol. 92, 123.

THEODORE J. GRAMM, M. D.

THE CLASSICAL CAESARIAN SECTION IN ITS RELATION TO OTHER COMPETING OPERATIONS.—Leopold, who has had a great experience with these operations, has compared them as to their clinical results and has formulated the indications as follows: The classical Cæsarian section is indicated in contracted pelvis of 8 to $7\frac{1}{2}$ cm. or less, in clean cases with living child, in primiparæ or multiparæ in every stage of labor. The results for mother and child are excellent. Mortality for the mother 1.2%; for child, none. The Porro operation is indicated in contractions amounting to 7 cm.; in infected cases, especially with dead child, sometimes also in primiparæ. It may be done in every stage of labor. The maternal mortality was none, and that of the children in maternal infection 5 to 6%. Hebosteotomy is limited to the saving of a child when the pelvic contraction is 8 to $6\frac{3}{4}$ cm. In a true conjugate of $6\frac{1}{2}$ cm. there may be great danger to the sacro-iliac synchondrosis. The mother dare not be infected to indicate this operation. Primiparæ are to be excluded because of the frequent injury to the soft parts and to the bladder. Maternal mortality, $\frac{1}{2}\%$; infant, 6 to 8%. The extra peritoneal Cæsarian section is indicated in the interest of the child in a true conjugate of 8 cm. or less. Although it was hoped that this operation would still be indicated in infected cases to save both mother and child, yet this hope has not been realized; for when infection exists the wound in the connective tissue is endangered, and the maternal mortality amounts to 7 to 8%, and 8% for the children. Other technical objections are mentioned. Considering all things, the classical Cæsarian section has shown the very best results for both mother and child. The author urges that all cases of contracted pelvis be referred to the specialist's care two weeks before labor, so that the case may be studied and prepared for operation, and particularly so that it may be protected from infection. If, however, the case comes under observation after infection, the Porro operation or craniotomy are to be considered. If the case is clean, the classical Cæsarian section is best for mother and child.—*Arch. f. Gyn.*, Vol. 91, 453.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

Dr. C. E. Page (*Medical Times*) cures all cases of sore throat from the simple to diphtheria by wet bandages (cold compresses) around the neck covered with dry towels, absolutely no food but all the water wanted by the patient. An old-time procedure, but very successful.—*November Recorder*.

Dr. J. C. Fahnestock (*Chironian*) says that *Echinacea* is "the great tired feeling remedy." "Tiredness is one of the general symptoms that goes to make up the *Echinacea* cloth."

Thiosinamin should not be prescribed in its crude shape, but in trituration. That is where the old-school men are at fault with this drug.—*November Recorder*.

Chammomilla,—Five or ten drops of the tincture in hot water will relieve many cases of night sweat.—*January Century*.

Sulphur iodatum will frequently be found curative in certain skin eruptions when sulphur seems indicated, but fails to relieve.—*January Century*.

Agaricus will frequently correct the irregular heart action of tea and coffee drinkers. Also beneficial for the heart difficulties of smokers.—*January Century*.

As a remedy for the prevention of tetanus after punctured wound *Ledum* stands on a par with "Antitetanus" serum.—*Clinical Reporter*.

A full dose of ergot, administered as soon as the uterus is empty will do more in the way of preventing puerperal sepsis than all the antiseptics that can be applied to the parturient tract.—*Clinical Reporter*.

Eryngium Aquaticum in doses of one-half grain administered three times daily has repeatedly cured cases of spermatorrhea after all other remedies and measures failed to give permanent relief.—*Clinical Reporter*.

Cramping in the legs and arms, especially if the attacks come on repeatedly after retiring, can, as a rule, be relieved by a few doses of *Secale Cornutum*.—*Clinical Reporter*.

Mercurius dulcis.—This remedy is not homœopathic to many complaints, but there is one condition in which it is very useful but often overlooked. The remedy is curative in many cases of catarrh of the middle ear associated with a catarrhal condition of the Eustachian tube. A mild degree of deafness may be present. Dr. Dewey recommends the remedy

highly in this condition, having seen many cures resulting from its use.—Hinsdale in *Century*.

Ranunculus bulbosus.—At least three violent cases of delirium tremens have been benefited by this drug. All three of the cases were habitual users of whiskey, and presented the following symptoms: Delirium, at times very violent, requiring several persons to hold them in bed. Occasional convulsions and much profanity. Most of the symptoms in all three cases were those which are characteristic of acute mania. *Ranunculus* was prescribed in five drops of the tincture every hour, and improvement was soon noticeable. In none of the cases was it necessary to use a hypnotic or other sedative.—Hinsdale in *Century*.

Chromium sulphate.—Dr. Louis Kolipinski, in a paper read before the American Therapeutic Society, has the following to say about Chromium sulphate: "Locomotor ataxia is curable with Chromium sulphate. The more recent the case, and the earlier the treatment, the quicker the result. The neuralgic pains and the severe forms of crises, especially the epigastric, succumb to its use. Hypnotics, anodynes and anti-neuralgics are not administered. The writer has seen a number of first-stage cases in which all symptoms vanished and no further ones appeared." The dosage is eight grains three or four times a day.—*January Century*.

Apocynum cannabinum.—This drug is considered by many the best diuretic to use in cases of dropsy associated with cardiac disease. The following conclusions are deduced from observations of a number of cases of general anasarca caused by mitral regurgitation:

1. The drug may be given in large doses for a long time—several years in a few cases—without injury to the patient.

2. Improvement soon manifests itself in the majority of cases, but if improvement does not appear soon after taking the drug its further administration will be of no avail.

3. The best way to give the drug is by starting in with small doses of the tincture—three drops—and gradually increasing the dose so that the patient is taking ten drops three times a day within three days.

4. Curative results have not been seen from its use, but the patient is made comfortable and the amount of dropsy greatly diminished.

5. The only evil consequence from the use of the drug is a slight amount of gastric irritation which is sometimes the result of its taking. This effect gradually wears off as the patient becomes accustomed to its use.

6. Many failures have been reported from the use of the drug, but the writer is inclined to believe that they are mostly due to the use of poor preparations. Beneficial results have not been obtained from the use of the various homœopathic tinctures, many of them seem to be inert. The best results have been obtained from the use of the eclectic specific tincture.—Dr. Hinsdale, *January Century*.

Pulsatilla.—A hospital patient suffered a long time with chronic gastric catarrh. Various remedies were prescribed without giving relief until it was noticed one day by the attendant that the patient wanted his food

cold and that warm foods disagreed. Pulsatilla was prescribed on this indication, and relief soon followed.—Hinsdale, *January Century*.

KALI CARBONICUM.—By Henry L. Stambach, M. D., Santa Barbara, Cal.—Characteristically kali carbonicum produces and cures sudden, sharp, darting, stitching pains, in any tissue of the body—worse when lying on the affected side—reverse of bryonia, which, however, may be followed by kali carb. as the symptoms change.

Peculiar sensitiveness to contact; can't bear to be touched; starts when touched ever so lightly, especially on the soles of the feet. Toothache when eating, or when touched by anything warm or cold. Nosebleed when washing the face in the morning. (Am. carb. arn.)

Anæmia, pallor, puffy upper eyelids like a sac of water or bag-like swelling. Apparent plethora, but pale, waxy and puffy. Girls at puberty unable to menstruate, with bloating; lumbar backache and weakness; skin watery or milky white.

Muscular weakness, exhaustion from loss of vital fluids, especially in the anæmic, the aged, obese, of lax fibre and dark hair.

Sensitiveness to cold and wet; easily chilled; slight exposure causes coryza, hoarseness, aphonia; difficulty in swallowing; sensation of fish-bone in pharynx (Hep. nit. ac.), with inclination to clear the throat; hawking and gagging in the morning.

Indicated after severe or protracted diseases. After labor or abortion or metrorrhagia occur backache, making walking difficult; she feels as if she must lie down in the street; with this occur cough and sweating at night. This particular sweat, backache and weakness, Farrington taught us, is a combination not found under any other remedy. It has undoubtedly often been the precursor of fatal lung disease, which the timely use of kali carb. might have averted.

The cough is paroxysmal, with gagging and vomiting of sour phlegm and food. In bronchitis, asthma, pneumonia or phthisis; with stitching pains, characteristically lower third of right chest to back, or may be erratic, occurring anywhere. Face white; oedematous; cough difficult; sputum hard to raise, or may slip back into throat. General aggravation 3 to 5 A. M. Late in phthisis, chilliness at noon.

Stitching pain may occur in lumbar rheumatism, or in impending miscarriage or in labor when these sharp stitching pains misdirected, pass off ineffectually down the buttocks into the thighs. Pulsating in small of back; pain in the spine while eating or drinking.

Indigestion of elderly people; great sensitiveness and stitches in epigastrium; distention of abdomen; flatulency extreme to bursting; fullness, heat and tension in abdomen after eating but little. (Carbo veg.-lyc., chinchona). But particularly in old people who are anæmic. Everything she eats or drinks appears to induce flatulency; constipation; rectum too weak to expel contents; hemorrhoids which burn like fire.

The heart in kali carb. is always weak; pulse irregular or intermittent, or rapid and weak.

The patient is nervous, easily startled by unexpected noise or frightened by hallucination to trembling.

Mentally dull or indifferent from the physical exhaustion.

Convulsions without loss of consciousness, even puerperal eclampsia, the spasms passing off with eructations; metritis with abdominal distention and stitching pains. In the chronic diseases Hahnemann tells us that *kali carbonicum* will bring on the menses when *natrum mur.*, though apparently indicated, fails. Also that persons suffering from ulceration of the lungs can scarcely get well without this antipsoric.

At all events the dyscrasia or cachexia must be reckoned with. Call it psora or latent tuberculosis, as you will, the antipsoric remedy goes back of acute conditions and rescues otherwise hopeless cases. Is it possible that the psoric or tubercular only break down under undue stress of protracted illness or unusual systemic drain, that defective reaction or faulty resistance is after all the one thing to be considered in every case beyond the ephemeral? Recent events would but accentuate this teaching of Hahnemann, and we must hark back for inspiration to that genius that discovered over a century ago, what is current teaching to-day under the alluring, because novel term, the opsonic theory; else must we learn our lesson all over again under new masters.

An illustrative cure may be apropos. The wife of one of our California physicians, æt. 20, a few days after confinement had chills and fever, every other day at the same hour. Galactorrhœa followed, did not nurse the child. This condition continued about two months, when unguentum belladonnæ applied to the breasts stopped the flow entirely. The chills and fever continued, however, despite treatment and change of climate, nearly six months, leaving the patient in a wretched state, which continued through the following three months. The weight was now reduced to 75 pounds. Cough night and day. Emaciation; sweating. (No examination of the lungs was made.) Obstinate constipation, even with the daily use of an enema, the stool had to be assisted. Menses had not returned. Stomach greatly disordered. Patient very despondent. Nausea after meals, with sour eructations; fullness and heat in the abdomen; very painful hemorrhoids. Almost constant backache; could not walk because of it.

As might be imagined, the young husband (a medical student, later a prominent surgeon), felt that he had indeed a most serious case, especially as two able consultants gave an unfavorable prognosis. On returning to college at Philadelphia he detailed the symptoms to the venerable Dr. Ad Lippe, who remarked concerning the case, "That is easy!" and prescribed two powders *kali carb. cm.*, one to be taken as soon as received by mail. The second, if no improvement followed, a week later.

The first was taken at night and was followed next morning by a spontaneous bowel movement. Menstruation returned within ten days. The cough ceased entirely. Almost all symptoms disappeared within a month and the patient gained ten pounds. At the end of the second month the weight was 95 pounds and she felt perfectly well and has so remained ever since, now weighing, nearly twenty years later, 112 pounds. A half dozen years have elapsed since this report was made and that patient proved a veritable guardian angel, saving in turn the life and honor of that husband. Who then shall estimate the value of a human life when it hangs in the balance, for the turning of which we are at times responsible!

Per contra: I recall the details of a case occurring some years ago. A young woman, out of magnificent health, returned from her distant home fatally ill with phthisis from a neglected miscarriage, with the continued leakage from the uterus to die within a year. The cases were practically parallel; one was cured by a master in therapeutics, the other destroyed by ignorance.

[Dr. Stambach (Hahn., '79) will no doubt recall that Prof. Farrington always said that *Kali Carb.* was not used nearly so often as it should be. He thought highly of it and considered it a polycrest.—ED.]

REMEDIES FOR CONJUNCTIVITIS.—The remedies that may be called for are numerous, and vary as much as the symptoms of individual cases. A few of those most commonly indicated may be mentioned, but it is needless to remark that every case must be treated on its own merits and in accordance with its own symptom picture.

At the outset of the attack, especially if resulting from cold winds, aconite may be given with advantage. When the condition accompanies a coryza, with watery discharge from the nose and a profuse flow of acrid muco-purulent fluid, excoriating the skin over which it passes, euphrasia will be found a sovereign remedy, the attack often yielding with great rapidity to its action. It is said that a characteristic indication for this drug is that *blurring of the vision is relieved by winking.*

Similar in its symptomatology to euphrasia is arsenicum, which also has the excoriating discharge, but the additional characteristic of burning pains in the eyeball < at night, > by warmth, is present.

It is these slight shades of difference between the various medicines used which constitute at once the difficulty and the interest of homœopathic prescribing, and success depends, not on any haphazard or empirical drug-selection, but on the accuracy with which the drug-picture agrees with that of the disease. Thus, *allium cepa* also resembles euphrasia, but with these differences, that in the former there is more frequent sneezing, and the *nasal* discharge is excoriating, but not the *ocular*.

Apis mellifica will be indicated when œdema, especially of the upper lid, is a pronounced feature, and where the lachrymation, though hot and burning, does not cause excoriation.

Mercurius solubilis closely resembles arsenicum in its sphere of action, as in both the discharge is burning, acrid, and excoriating, and there is also nocturnal aggravation. But in *mercurius* the pain radiates from the eyeball to the surrounding bony parts, and may be relieved not by hot, as in arsenicum, but by cold applications.

Pulsatilla is another important remedy, and its well-known peculiarity of being most suited to mild and tearful females may be taken into consideration. The discharge may border on the purulent, and the symptoms are usually much relieved in the open air. A lady, aged 50 years, answering closely to this description, both personally and symptomatically, who had long suffered from frequent attacks of this kind, was completely cured by a course of this drug in the sixth dilution, with a mildly astringent collyrium at bedtime.—A. Speirs Alexander, M. D., *British Hom. Journal*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

In a conference given by Prof. Charles Richet in the Vienna Congress of Physiology, in September of 1910, he gave us many experimental facts and phenomena, which, like other modern discoveries, have come to substantiate and strengthen our doctrine.

The discoverer of the *anaphylactic phenomena* did not hesitate to state that he believes in the *action of the infinitesimals*, capable, when placed in contact with the cells and tissues of the body, to bring about modifications, which conveniently directed, may arouse qualities till then latent or concealed, and of which Homœopathy is making daily use.

He commenced his address by stating that the great scientific revolution did not bear fruit at the onset. There were periods of incertitude, of hesitation, during which *physiology and medicine*, its faithful companion in the glorious XIX century, so rich in discoveries, were oscillating, without exactly knowing from which side the impulse would come.

In the early days of Bacteriology, science seemed to definitively depart from *humoralism*, but soon important works demonstrated clearly that we had to go back to chemico-biological analysis, that is to say, to humorism, to understand the evolution of microbes. It was Roux, of Paris, who first showed that the symptoms produced by the microbes were the same as those produced by their soluble ferments. By injecting the toxine separated from a culture of diphtheria bacillus, a malady identical to diphtheria is produced, and by the same mechanism death is occasioned.

Later on Richet, associated to Hericourt, demonstrated that in immunized animals there exists chemical substances capable of producing immunity. This is the principle of *serotherapy*, so brilliantly applied by Behring to diphtheria, two years later. Since then, with incomparable zeal, both medical investigators and physiologists made ready to deeply discover the chemical functions of the blood. This zeal has given rise to the discovery of many properties, whose complication is increasing every day. *It is the triumphing humorism, the humorism in its most rigorous meaning.*

This is the manner in which medicine has again unfolded towards humorism, following the tendencies of modern physiological studies.

We cannot resist the temptation, says the commentator, of translating some of the most notable paragraphs, in which, with a great profusion of documents, a great praise is given to morbid individualization and dynamization, accepting them wholly and formulating the laws upon which modern humorism rests.

The first law of modern humorism is the following: "*The quantities of substances which enter into play in the physiological reactions are frequently so small that they can well be considered imponderable.*"

Prof. Richet gives then a great number of examples about the incontestable action of substances in infinitesimal doses. For instance, he was able to demonstrate that a ten-millionth of a milligramme per litre of the

salt of *Vanadium* has an appreciable influence on lactic fermentation. And, as there exist in a litre of milk more than one hundred thousand millions of cells, the amount of *Vanadium* which acts in each one of these cells is indicated by a fraction of a gramme, composed of 27 zeroes.

A very curious experiment is that of Engelman. Certain infusoria contain in their cells a few granulations of chlorophyl. Now, if we place these infusoria in a liquid containing bacteria, and we allow a ray of sunlight to penetrate it during a second, we see all the bacteria eagerly dash towards the infusoria containing chlorophyl. The reason for this is that the minute quantity of chlorophyl, illuminated for a second, has decomposed a particle of dissolved carbonic acid and developed oxygen which attracts the bacteria. Here we are dealing with an imponderable quantity, the one millionth of a grain of oxygen.

Experience has shown that the spermatozoids are very sensitive to the action of infinitesimal substances. Thus, if we place a drop of a one-thousand solution of malic acid in contact with the spermatozoids, these will be readily attracted and do not progress unless there is a difference of acidity between the acid found at the head and the acid found at the tail. Moreover, the influence of certain very diluted metallic salts on the maturing of the egg has been amply demonstrated. It follows that it is chemistry or humorism which regulates the penetration of the sperm into the ovule, the same as the maturing of the egg and its embryogenic development.

Anaphylaxis offers us likewise a striking example of the power of infinitesimals. *Anaphylaxis* is the contrary of protection (*phylaxis*). If a toxine is injected into the circulatory system of an animal, instead of being protected against a new injection, it becomes more sensitive. This is *anaphylaxis*.

Rosenau and Anderson have demonstrated that the serum of a horse injected into guinea pigs has the power at a dose of a thousand cubic centimetres to bring about *anaphylaxis*. Vaughan has been able to extract from ovo-albumin a crystallizable chemical albuminoid substance capable of *anaphylactizing* at a dose of one thousand millionth of a gramme.

We have then a new chemistry, the chemistry of the imponderable, which has led us to a still unexplored field—the physiology of the individual. Two individuals of the same species are not identical; we have, each one of us, our humoral individuality, and each one of us is different from other men, not only by our mentality, but also by our chemical constitution.

The second law of humorism is this: *The activity of a liquid results from the conflict of two substances which, when isolated, are inactive.*

We find a convincing example of the combined action of two inactive substances, in a well known experiment, known to all physiologists since the times of Claudio Bernard. The *amygdaline* of bitter almonds is an inoffensive substance, and nearly the same is *emulsine*. Now, if we inject a small quantity of *emulsine* to an animal which has already received *amygdaline*, we at once notice alarming toxic symptoms, the result of the production of *hydrocyanic acid*.

These are, more or less, the leading expressions of the brilliant analysis of Dr. Richet's paper, made by Dr. Ricardo Moragas, published in the *Revista Homeopática*, of Barcelona, Spain.

THE HAHNEMANNIAN MONTHLY.

MAY, 1911

Transactions of the Homoeopathic Medical Society of the State of Pennsylvania

ADDRESS ON HOMŒOPATHY.

BY

O. S. HAINES, M. D., PHILADELPHIA.

THE topic upon which we shall ask you to focus your attention for a very few minutes this evening, was chosen and placed upon the program by our president. A paper upon another subject had been almost completed, when our copy of this program was received; but we decided to comply with our president's wishes; especially as there is in his wording of the topic—something of a dare. "The modern conception of Hahnemann's Law"—the comprehension, notion, idea or opinion that we of the present generation have of this law. It is as if our presiding officer had asked of us, "Well, what do you *think* of Hahnemann's Law now?" After all that you have heard said about it, and after you have practiced according to it for five, ten, twenty or more years, as the case may be, and have had ample opportunity for finding out its weaknesses, its short-comings, its faults; what do you think of it and what do you think of Homœopathy? It's an admissible query; and I am going to pass it along to you, my audience. I do not think that it will be out of place in the midst of our discussion of the elaborate and scientific papers

which will occupy the time of this society, to interpolate a simple, plain, old-fashioned talk upon Homœopathy, that we trust will voice most of the sentiments of recent writers and thinkers of our school, who have been lately considering the past, the present and the future status of Homœopathy. Now personally we have never yet heard anything true said about Hahnemann's Law, that was not in reality commendatory. A great deal has, however, been said about Homœopathy, much of which is undeserving of our notice, but some of which is rather important to those who love to think that the distinctive therapeutic method based upon Hahnemann's Law, is one that will endure for all time.

We used to hear that the dosage of Homœopathy is absurdly infinitesimal. Our doses are small, but they are not absurd. They are the result solely of accurate observations and much experience. The Law was *first* discovered; and, the important, the essential, the vital part of Homœopathy is Hahnemann's Law; not the dose. In the year 1910, infinitesimal doses are not considered absurd. They are considered necessary to the perfect action of many therapeutic agents that stimulate the vital forces of the human economy to throw off disease. Infinitesimal dosage is no longer peculiar to any sect of medical practitioners.

We *used* to hear that Homœopathy ignored the *causes* of disease, dealing only with the vaguest *subjective* manifestations. That Hahnemann paid little attention to pathology. That is true, if by pathology is meant the pathology known to moderns; and, it was perhaps as well that he did not in his day, for modern pathology is so young a science, that many of us can remember its natal day. Those of us who are familiar with the Organon, know how *much* attention is there given to *causative* factors in disease manifestations, and to the necessity for the prompt removal of all removable causes in order that remedies may exercise their full power unhindered. Hahnemann considered etiology just as far as was *possible* in his day. We used to hear Hahnemann's totality of symptoms criticised, but most of us recognize that it is possible in the year 1910 to find out a great deal more about a sick man, than it was in the times of our forefathers.

And so the Homœopathic school, after listening most attentively for a century, and after waiting that long to hear a single true and logical criticism that would bring to light

the weakness, the defects, the untruth in Hahnemann's Law; have grown very tired of it. Our school, it seems to me, has been devoting its *whole* time for some years past, to the practical *demonstration* of the *value* of the Law, to the profession at large and especially to the public; who have the best right to demand *proofs* of the superiority of our method of using curative drugs. The result has been, as you know, that the *public* are in large measure convinced and satisfied, and have accepted Hahnemann's Law as a great addition to the practitioner's art.

The great majority of the *medical profession* have been hostile to the law of similars and hostile to that method of using drugs, known as the Homœopathic method, ever since this was first systematically expounded by Hahnemann. Why this was and is so, is difficult to understand. It seems so illogical that a true, useful and absolutely dependable guide, should have been passed by; while at the same time there has been always such a mad rush after every medical innovation, even though it bore upon its face the marks of unreality. The majority of the profession are still hostile. What are the signs and omens showing us that the majority will ever be anything else but hostile? If any such signs be visible, they are showing in our own school; and are unquestionably the growing belief among *us* that the future development of the *practice of Homœopathy* must be along more scientific lines and more in keeping with the *environments* of Hahnemann's Law in the twentieth century. That is the *most* hopeful sign for the future.

It would be unfair, however, if we did not note the willingness of a large and growing number of the Eclectic School of Therapeutists, to admit the truth of and to profit by the assistance of Hahnemann's Law in the selection of their remedies. The eclectic profession are very evidently sincere in their belief that whatever therapeutic measure seems best for the patient, that should be given a trial regardless of school or sect. They are also not afraid to use the word "Homœopathy" if the occasion demands it. The majority need Hahnemann's Law to-day, almost as much as they needed it a century ago. Some of you may take exception to this statement, but it is a fact. The majority need the assistance of some such anchor in therapeutics, and they need it rather badly.

At a recent meeting of the A. M. A., one of the essayists spoke of "the uncertainty, the unrest, the dissatisfaction so characteristic of therapeutics at the *present* time." So you see there is some reason for the statement that the majority do need something in therapeutics that they have not got.

Really, the *only* reason that *Homœopathic* physicians reiterate and reiterate the beauties and advantages of Hahnemann's Law in the practice of drug therapeutics, is their humanitarian desire to see *everybody* enjoying its advantages. And then in addition to that they *wish* for a complete and effective publicity, because there is nothing about Hahnemann's Law that they wish to hide.

Neither does the Homœopath believe in putting a premium on selfishness, he never has; we recognize the *right* of *our* patients to demand of us the best that medical science has to offer to the sick upon every occasion, and we give it to them. We conceive that this is a *duty*, quite apart from our belief in Hahnemann's Law as a trustworthy method of selecting remedies.

And we also wish the entire medical profession to be in the possession of a working knowledge of Hahnemann's Law, so that *no* patient may suffer from that lack in his physician. The altruism of our school has not always been understood, nor appreciated. The practice of Homœopathy does not antagonize *medical science* in any way. The more scientific, the more advanced in his thought, the more learned a man is; the better practitioner of Homœopathy he should make. Homœopathy owed its *origin* to the fact that Hahnemann was a physician who stood with head and shoulders *above* his fellows, because he was a scientist, an advanced thinker, a thorough student.

Hahnemann's Law, nor the practice of Homœopathy, neither of these should curtail a man's individuality. Indeed, they afford the widest scope for the exercise of individual opinion. If I were asked my opinion of Hahnemann's Law after thirty years' experience with it, I think I should sum it up in two words: Its helpfulness and its uniform reliability. And I believe that most if not all will join in that sentiment.

So, when we urge upon the unconverted majority, the free *acceptance* of this help, we are offering something that has been thoroughly tested, and established by a century of experience. It, therefore, is apparent that one of the important *duties* that

confronts us, is the *continuance* of this policy of publicity, we must *continue* to urge upon the majority the acceptance of Hahnemann's Law, and we must continue to *demonstrate* to the public, the superior advantages of a therapeutic practice upon that law.

Furthermore, the Homœopathic minority must fully realize that it is their moral duty to protect and to further develop the therapeutic method that is based upon Hahnemann's Law. And it calls for the most careful conservatism on our part, whenever the question of the abolishment of medical sectarianism comes up for discussion, and whenever the complete coalescence of the various medical schools is suggested.

The fact that we *are* banded together as a sect in medicine, simply means that such a course *has* been *necessary* for the protection of our own interests and for the development of our particular specialty-drug therapeutics based upon Hahnemann's Law. This course *need* not have been necessary, but it was. This course *might* not be necessary now, but it is. And these two facts must simply be met by our school. It seems that such simple facts need to be *kept before* our school.

Some of our lay friends seem to have a rather confused idea of the *attitude* of the Homœopathic school of the present day. Some of them seem to think that there is a battle for supremacy going on between the medical sects. Such a thing is certainly *foreign* to the policy of the *Homœopathic* school. Some of our lay friends seem to have gotten the idea that a hostile majority have practically organized a medical trust or corporation having as one of its *ultimate* objects either the final absorption or else the annihilation of *all* schools of therapeutics not thoroughly affiliated with this medical organization. I think we may *state* that the *Homœopathic* school entertains no such notion of modern medical organization, believing rather that its prime object is the *advancement of medical science*, and the abolition of fraud and quackery.

Two statements that are absolutely true regarding the attitude of our school, is that we earnestly desire that all men may know and profit by the help of Hahnemann's Law, and that we earnestly desire to so protect and develop the system of medical treatment that is based upon that law; that it may not be lost to future generations. This is our platform.

If we Homœopathic practitioners of to-day were asked individually whether we were perfectly satisfied with Hahnemann's Law, I believe that the verdict would be unanimously in the affirmative. It seems impossible that it would be otherwise. But if the question asked of the modern Homœopathic school individually was this: "Are you perfectly satisfied with the ancient and modern *practice* of Homœopathy?" it does seem likely that the votes would have to be counted.

It is sincerely to be *hoped* that we are *not* entirely satisfied with the practice of therapeutics which has been based upon the interpretation and utilization of Hahnemann's Law during our own generation, nor during the times that have passed. Nothing could be *quite* so bad for our art, as a feeling of complete satisfaction with the progress that has been made or the success that has been had. And nothing will stimulate us as *much* as a little healthy dissatisfaction with things as they are and things as they have been. But it must be a *healthy* sort of unrest and dissatisfaction; the sort that makes a man criticise himself, his own work, his own results and the support which he himself has offered towards the progress of our school.

There is nothing, perhaps, that promises more for the future of Homœopathy and the Homœopathic school than the fact that the majority of our own colleges are now doing all they can do to advance the standard of medical education. Our school has long since taken the stand that *all* practitioners of the healing art, should have a thorough medical education and training, no matter what their *therapeutic* predilections may be; and this education shall be along modern lines. It does *seem* as if it becomes *another duty* of each member of our profession to aid and support our colleges in this splendid effort.

As an illustration. As to my way of thinking, that priceless gem, the law of similars, our guide to the scientific practice of medicinal therapeutics, has never had such a setting as *your* alma mater gives it in her splendid curriculum of to-day. This is no idle boast, but a statement that can be verified by any one of this audience, that your alma mater is giving to the student of Homœopathy which you send to her, as full a medical course and as perfectly an arranged course and as evenly balanced a course as any other medical school in America. This is your *alma mater's* conception of what

should be required of every man who elects to follow the guidance of Hahnemann's Law in his therapeutic work.

We have spoken of a certain dissatisfaction that is surely growing within our ranks. Let us enquire for a moment just what is meant by this. The Homœopathic school realizes more and more each year, that there is room in certain directions for great improvement. One has only to keep abreast of our periodical literature to realize that this is true. The modern conception of Hahnemann's Law is that it is a law of still greater possibilities. While the practice of medicine is gradually becoming an exact art, the improvement in technique is least noticeable in the department of therapeutics.

We must remember that the methods and measures by which disease is *assailed*, develop only in proportion to our understanding of the etiology and the nature of human ills. Frankly, we do not as yet know all that we should know about these things, nor all that we shall know. Therefore, the therapeutic art *will change* its methods, will improve its technique, will expand and grow with our expanding knowledge of *these things*. Any system of therapeutics that does not do this, must stagnate and finally die. The Homœopathic school feels now especially that it must re-establish and strengthen the *foundations* of its grand old materia medica; and that this must be done by modern workmen, according to modern methods of investigation, research and confirmation.

It *seems* as if we *ought* to be able to take advantage of the almost perfect laboratory methods of the present day, it seems as if we *should* be helped in this work by the improved methods of investigating disease and studying pharmacology. It seems in short as if *this* generation of Homœopathic workers ought to be able at least to begin to make pathogenetic records along up-to-date lines.

This great work has already been begun; but, the entire profession has not as yet fully awakened to its importance. It does appear, if signs fail not, that the *future* generations of Homœopathic practitioners are going to have a greater materia medica, that shall be structurally well nigh perfect, according to modern standards, and that with this will develop a much improved technique.

What we have said, is offered simply as an *echo* of what

our school is saying just now, and, what our school is thinking about. I commend it to your earnest consideration, ladies and gentlemen, now and later.

BUREAU OF MATERIA MEDICA.

DR. E. L. NESBIT, *Chairman*.*

DISCUSSION OF DR. NESBIT'S ADDRESS.

DR. LOOS: The subject of *Materia Medica* is rather a difficult one to discuss from the homœopath's point of view, for the reason that it deals largely with end results. Phosphorus and other remedies pushed to the limit will give us poisonous conditions; but this sort of symptomatology—these morbid anatomy symptoms—are exactly the symptoms that we have to disregard in our patients in selecting a homœopathic remedy for them. They are not the characteristic symptoms of the remedies; they are not the symptoms to which Hahnemann referred when he said that the totality of the pathogenic symptoms of each individual remedy must be known. These morbid anatomy symptoms are not characteristics which form the image of your sick individual and the image of the remedy. They are to be disregarded. We may have a half a dozen patients with arteriosclerosis who present different symptoms, but not the symptoms which are of value in finding the homœopathic remedy. It is a curious thing that with all our modern laboratory methods which we used in the reproving of belladonna everything which is of value to the homœopathic prescriber lies outside of the results obtained by the microscope, blood examinations and other modern methods. The things of value in these provings are not material symptoms which can be explained by morbid anatomy; they are the symptoms which the patient expresses subjectively that you cannot put your finger on or see with the microscope. Much of the talk of modern investigations in the proving of remedies leads to nothing new of value to the homœopathic prescriber.

DR. THEODORE J. GRAMM: I don't think there is any quarrel or contest between the laboratory method of studying the action of drugs and the results obtained by provings. I think

*Dr. Nesbit's address will be found in *THE HAHNEMANNIAN MONTHLY*, November, 1910, page 839.

that the laboratory method will have the effect of placing upon a sounder foundation the older provings, and, furthermore, it will show us not only why homœopathic medicines act, but also why we sometimes fail in our prescriptions. For example, we have often prescribed a drug according to certain symptoms which the patient had and the remedy failed to bring about a response on the part of the system to the exhibition of that drug. Now this has an underlying explanation somewhere, and I think it is just exactly the study of these late changes that are produced by a drug that will enable us to prescribe more accurately.

DR. TERRY: I think that there are two sets of symptoms—the objective, those we can see as physicians, and the subjective symptoms, those that the patient tells us about and we cannot see. Both of these go to make up the totality of your picture, and I think that they are both necessary in the proving of the drug.

DR. FLEAGLE: In these days when scientific explanation is demanded for practically everything we do or say, it may be well for us to study what in our science is medicine and what is art if you choose to call it that. If you were called in to see a case of dysentery, for instance, you can give the pathological changes that occur with a minute degree of exactness—that is science. When we come to cure that case of dysentery by a remedy, that is art. Just as soon as you begin prescribing on the pathological condition without regard to certain other characteristics you are getting away from what I believe Hahnemann intended as the fundamental principle of homœopathy. I admit that homœopathy possibly is an imperfect art, but while we are improving the science of medicine let us also try to improve the art of prescribing.

DR. NESBIT: In the presentation of this subject I trust that I may not have been misunderstood as touching in the least upon the applicability of drug pathogenesis for therapeutic purposes. It was not the matter under discussion. The question was as to the ascertainment of fact—of facts—in the knowledge of pathogenetic effects of drugs. How shall we best ascertain the facts of drug pathogenesis? The applicability—or the art of applying that data, covers a vastly greater field; and so I hope I may not be understood in my paper as implying that the index of similarity between drug pathogenesis and disease processes consists merely in a structural identity, or structural likeness, but that the completed patho-

genesis turns upon a structural similarity as well as superficial symptomatic resemblance also. No one more than the advanced pathologists of to-day agree that pathology in the real sense of the term means pathogenesis, and includes functional as well as structural; and as Adamy, one of the greatest pathologists of to-day, has said, we come to recognize that pathology treats of disease processes, rather than morbid states. What I advocate is a completed pathogenesis, rather than an application of pathogenesis for therapeutic purposes, of relationship, of similarity existing between diseases, and a method for ascertaining it in order to make it intelligible and to demand the confidence and the intelligent application of it by men trained in modern methods and men who may in good time be practicing, or have to practice, for twenty or possibly thirty years more in the course of natural events.

DISCUSSION OF DR. RAUE'S PAPER ON THE PATHOGENETIC ACTION
OF PHOSPHORUS AND ITS RELATION TO THE THERAPEUTICS
OF RICKETS.*

DR. BOWIE: In an old book published one hundred years ago one of the admonitions was: "Imitate me, but imitate me exactly." The author of that was no less than Samuel Hahnemann, the author of the law of therapeutics, not the rule. He laid down a law to govern us in the administration of drugs, intending that his demonstrable truth is without the realm of hypotheses. If we consider that the law of similars is just a hypothesis as was all the theories advanced before Hahnemann's time, we had better go back and study the *Organon* that he gave us and find out what he says about this matter. I can see no difference between a laboratory method and the method of proving that Hahnemann gave us. They all lead to the same thing, but give Hahnemann the credit and do not go to criticizing him and complaining about him just because there are symptoms that are not reliable. We have curative symptoms mixed up with our pathogeneses and other very important symptoms. Let us stick to the law of similia, let us stick to the principles of our *materia medica*, and don't be continually finding fault. If you can produce better provings, do so; but while we have these provings let us use them and not decry them. Take Hemphill's *Materia Medica*, for instance, and you will find in it all the effects of phosphorus that are described here to-day.

* This paper was published in *THE HAHNEMANNIAN MONTHLY*, October, 1910, page 747.

PLUMBUM AND ITS COMPOUNDS.

BY

EDWARD CRANCH, PH. D., M. D., ERIE.

PLUMBUM, or lead, and its compounds can very well be regarded as a group-unit, for the underlying general symptoms are the same through all.

The anamnesis of any protracted case of lead poisoning shows an initial stage of dullness, apathy, lassitude, and checking of all functional activity, suggesting the onset of typhoid, but without the characteristic leukopenia of that fever.

In lead poisoning there is also anemia, and great pallor, with dryness of skin. Plumbum is as remarkable in its negations, as in its well-known positive symptoms.

We find no hint, in its action, of resemblance to any septic or ulcerative or heteroplastic process, no suggestion of an infective central point, or of germ life anywhere, such as does occur in the provings of Kali Phos., Silicia, Baptisia, Echinacea, Bryonia, and the nosodes. If, as in so-called fibrous phthisis, with contraction of lung substance, and great emaciation, or in the changes that accompany contracted kidney, there is an approach to septic phenomena, this is wholly secondary to the main action, and is not properly a part of the action of lead.

The earlier stage of lead poisoning is easily amenable to treatment, first by removing the cause, second, by the exhibition of chemical antidotes, such as solutions of sulphuric acid in beer or lemonade, when an insoluble sulphide of lead is produced, appearing as a blue line upon the gums, in many, but not in all cases. Third we have the truly homœopathic remedies, the chief of which, especially in the dreaded "*Colica Pictorum*" is Opium, which not only deadens the pain, but is strictly homœopathic to the constipation, while alum, often useful, is similar to lead in astringent action, and nux vomica, another valuable antidote, resembles the sudden spasmodic effects of Plumbum, in its more violent operation.

As the action of lead passes into the chronic stage, its pathology becomes most interesting, for we find, caused by lead, a complete form of arterio-sclerosis, especially of the arterioles of the cortical matter of the brain, and, in particular, of

the anterior horns of the cord, suggesting infantile paralysis.

In fact, in the case of sufferers from lead absorption, there occur many forms of paralysis, of shaking palsy, of ataxia, of neuritis, of arthritis, of pneumonitis, pleuritis, and nephritis.

We sometimes find single and multiple aneurisms, but always and everywhere the puckering, constrictive sensations and phenomena, best known in the action of the acetate, the most poisonous salt of lead.

The well-known colic pains feel as if everything in the abdomen was drawn back forcibly toward the spine, with paroxysmal pains of the greatest violence.

When there is neuritis, there is generally great hyperesthesia, but later, often anesthesia, with great atrophy and emaciation, suggesting progressive muscular atrophy. There is often a remarkable combination of lassitude and tension, a lassitude that does not relax, an impotency that is yet conscious, as it were, of strained effort—"too tired to rest."

Hence results, in some cases, delirium, dementia, acute mania. The underlying lesion, however, is, as stated, a true arterio-sclerosis, hence its usefulness ought to be along the line of these chronic, incurable forms of disease, that depend upon, and follow this condition of the vascular system.

And so, in fact, we find cases of cure by plumbum, of paralysis, of delirium tremens; as, of myalgia, of Bright's disease, or cardialgia, of hypertrophy of heart and its dilatation, of meningitis, and its complications, of infantile paralysis.

Locomotor ataxia, and epilepsy have been benefitted, but no known cures reported. In more acute ailments, plumbum has an extensive record of cures. It is a common routine remedy, in very minute doses, for constipation, for neuralgia, for colic that resembles painter's colic, dysentery, perityphlitis, stricture of intestines, headache, and some forms of dyspepsia.

Among the peculiar symptoms suggesting plumbum, are the assumption of strange and extraordinary positions in bed—a sensation as if there were not room in any inward organ that might be affected, and in general a relief from pressure and massage. There is dryness of skin, and falling of hair.

Besides many positive cures, much has been done by plumbum for the relief of chronic and incurable complaints.

ERGOT; ITS RELATION TO ARTERIO-SCLEROSIS.

BY

W. E. KEPLER, M. D., TACONY, PA.

WHEN we take up a study of ergot we find that this drug has been much abused by our fellow practitioners, the Allopaths. They use it without a bit of discrimination, especially for uterine inertia and uterine hemorrhages.

Ergot is the compact spawn or sclerotium of the claviceps purpurea, replacing the grain of the rye, *secale cereale*. The ergot of the rye is the only official preparation. It occurs in compact masses. The grains are nearly triangular, somewhat curved and marked lengthwise by three grooves thickest in the middle and tapering toward each end; of a dark purplish color externally, and nearly white in the centre. They have a heavy, unpleasant odor, and a fatty, mawkish, disagreeable taste. Ergot contains about 35 per cent. fixed oil, a peculiar sugar and two coloring matters. Chemists have isolated or derived a number of active principles.

In 1875 Tauret isolated for the first time a pure crystalline alkaloid which he named ergotinine. Other observers have isolated this same alkaloid in more or less impure form, but being misled by either the physical, chemical or pharmacological properties of the bodies they prepared, they have given their impure ergotinine various names, picrosclerotin, sclerocrystalline.

Secalin. Ergotinine was tested in 1884 by Kobert and he showed that if pure, it had no pharmacological action. He prepared another alkaloidal resin coruntine which had marked physiological properties. Other observers isolated other alkaloids as chrysotoxin, secalintoxin and sphacelotoxin. This confusion, according to a paper on "Ergot" by Cronyn and Henderson in "The Journal of Pharmacology and Experimental Therapeutics," has, in a very large part, been cleared away by the work of Kraft and of Barger, Carr and Dale.

These observers have shown conclusively that ergot contains two alkaloids. One of these is crystalline and is insoluble in water. This alkaloid has no pharmacological activity. The second alkaloid is amorphous and has been named ergotoxine. Evidence has been shown by Kraft that ergotoxine

is a hydrate of the crystalline ergotinine. The salts of the ergotoxine are crystalline and soluble in alcohol.

The studies of other observers reveal the presence of thirty-three per cent. of fat (largely olein and palmatin). An acid has been isolated by Kraft called secaleamido-sulphonic acid which if injected subcutaneously caused a dilation of vessels and a fall of blood pressure. Brieger isolated another principle, choline, which causes a fall of blood pressure if injected into the circulation.

The chemical studies have revealed one alkaloid ergotoxine which has been shown to have many of the typical pharmacological actions of ergot, but as its salts are very slightly soluble in water, it is hard to explain the pharmacological activity of the aqueous preparation of this drug.

The isolation of the ergotoxine has enabled Dale to show us that it stimulates plain muscle tissues, especially of the arteries and the uterus. On the heart in an animal with intact medullary centers and vagi, it often causes a marked slowing and even when the vagi are cut some slowing is usual.

The galenical preparations show quantitatively great variations in pharmacological action but seems to be essentially similar to that of ergotoxine. If injected intravenously a fall of blood pressure always precedes the rise. The fall varies in extent and duration with the preparation. Dixon has also called attention to the fact that the galenicals often increase the force of the beat and the output.

Shoemaker, in his *Materia Medica and Therapeutics*, says, "The heart muscle is depressed by it and paralysis of the heart may cause death after intravenous injection of ergot. The secondary rise of blood pressure represents the effect of the physiological stimulating action of the drug upon the vasomotor centers and upon the unstripped muscular fibres in the arterioles."

The epidemics which arose from eating ergotized rye called the attention of the medical world to the drug. The gangrenous form of the epidemic is more common. Von Recklinghausen long ago from histological studies expressed the opinion that ergot gangrene was due to a long continued contraction of the arterioles with the formation of thrombi and local death from anemia. This would help to explain the peculiarly rapid hyaline changes described as occurring in the vessel

walls. The effect of the action of this drug is the contraction of the arterial wall which leads to a higher blood pressure, and there is some evidence that the pulmonary vessels are contracted by ergot, and that this contraction occurs before the contraction of the vessels of the abdominal viscera. It has undoubtedly been shown that the pressure in the veins and arteries of the lungs increases and as hemorrhage from the lungs is so usually due to eroded arterioles, the increase in pressure would offset any decrease in calibre.

This drug has a greater effect on the intestinal vessels and as a result causes a passive congestion of the lungs and a very marked subsequent rise of pressure in the pulmonary vessels. It has been claimed that the action of ergot upon the vessels seems to be the ideal one in cases of shock or low blood pressure from other causes, as here a prolonged increase in blood pressure is demanded in these cases. In cases where the blood pressure has fallen very rapidly and is very low it has proven ineffective.

The symptomatology of ergot, according to the Homœopathic provings, is that there is enlargement of the liver, hemorrhage from the bowels, uterine hemorrhages, palpitation of the heart, pulse small very rapid, contracted, frequently intermittent; limbs cold, pale, wrinkled; numbness, insensibility especially of the fingers and toes. There is a sensation of something creeping under the skin, dyspnoea.

Does not the action of this drug correspond to the symptomatology and pathology of arterio-sclerosis? In arterio-sclerosis are found palpitation, dyspnoea, precordial pain, increased blood pressure, general circulatory failure. The pulse is slow, hard, showing high arterial tension. If we consider the pathology of arterio-sclerosis we find that at first there is an over-dilatation of the blood-vessels and a loss in the elasticity in the muscularis. As a result of this loss of elasticity there is a hyperplasia of the intima which serves to contract the lumen and thus restore the vascular channels to their normal conditions. There may be purely functional weakness of the muscularis. In all cases the direct effect of the elevations of blood pressure may play an important part, and in cases of muscular over-work or of hypertrophy of the heart, the increased vascular tension may be the all important cause.

Thus as we review the action of ergot as has been outlined, we find much similarity between its action and the result of arterio-sclerosis on the vessel walls.

DISCREPANCIES AND VAGUENESSES OF THE HOMŒOPATHIC MATERIA MEDICA.

BY

WM. A. SEIBERT, A. M., M. D., EASTON.

PURIFICATION of the Homœopathic Materia Medica is the cry of one faction, and a stubborn unwillingness to discard any one of the accumulated symptoms of our Materia Medica, the principle of another faction, and yet satisfactory purification is not accomplished, and cumulative symptomatology is not demonstrating the Homœopathic Materia Medica to be the exact science that we do believe it is. This paper will not apply for those too willing to discard, nor for those who will not agree that discrepancies and vaguenesses do exist plentifully. Eventually, however, it will have been good that some of us were over-scientific, and others, vulgarly, "from Missouri."

Numerous possible sources of discrepancies and vaguenesses suggest themselves, beginning with the original day-books of the provers and their censorship, their translation and transcription; errors of crudeness, and errors of modern scientific methods as well, interjection of theory, personal interpretation, etc., etc. Such discrepancies and vaguenesses do exist and must be cleared up by authentication of the symptom and reproving of the remedy.

We draw attention to a distinction here. Reproving authenticates, but failing to verify does not nullify a symptom, and therefore authentication of the symptom entails much more than the mere reproving of the remedy. They are, in fact, distinct processes, and authentication, if not the more important, is at least the more neglected. Authentication should include reproving. It should include also the physiologico-pathological explanation of the existence of the symptom. Physiology and pathology will be able to explain the existence of many symptoms—more and more of them every year—but those symptoms probably most valuable for selecting the remedy may never be verified in the laboratory. The laboratory will verify quite as many symptoms that will be quite as useless in selecting the remedy as our encyclopædias contain of useless symptoms for learning the Materia Medica, and

that may never be verified in the laboratory. Authentication should also include the clinical verification of the symptom, and this is probably the most important of all.

In passing it may be added that clinical verification is not rank empiricism, and the difference between Homœopathy and specific treatment has been frequently explained. We are not an empirical school, and we are not a physiologico-pathological school. Proving therefore or the laboratory, or even physiologico-pathological experimentation may never authenticate the fact that John Jones did experience a certain proving symptom, that may or may not ever again be produced, yet that has been clinically verified. We can glory in the fact that this field of work still belongs exclusively to the Homœopath. Laboratories and societies for research work and reproving are being endowed. May these cultivate physiology and pathology rather than physiological and pathological anatomy, histology and organic chemistry. May the theory of cure receive the attention rather than the theory of disease, and finally, we trust, the full authentication of all recorded symptoms will in time receive its due consideration.

Nothing is adding more "Babel" to our confusion than the pernicious copying of discrepancies and vaguenesses, inconsistencies and ambiguities, and the deliberate omission of acknowledged symptoms by the successive authors, at the same time that we are casting about to learn why reasoning minds will not accept our *Materia Medica* and irresistibly adopt Homœopathy.

We shall confine ourselves to this phase of our subject, and to stimulate the pencil and paper habit, we shall briefly illustrate our idea by noting a few discrepancies and vaguenesses, as we proceed in the comparison of a single symptom of one remedy, arbitrarily selected, with the same symptom in other remedies, thus the more clearly defining distinctions than if we pursued one author throughout, or even one symptom through all the various authors. The work can be sub-divided into, first, a consideration of our repertories, and thereafter a separate similar study of the *Materia Medicas* themselves. We shall pursue the subject according to the time limit prescribed for a paper by this society, and trust we may be able to illustrate it sufficiently long before exhausting that time.

Now take the Delirium of Belladonna as our symptom. In

the first place we must all understand the same thing by the term Delirium, viz.: "A morbid condition, often the result of fever, in which mental action is irrational, incoherent, and characterized by illusions, hallucinations, and erratic fancies. Wandering of the mind." (Standard Dict.) Everybody must agree with this and comprehend it.

Next, we must authenticate the fact that Belladonna has really caused Delirium, and this is what we contend is the most important work before Homœopathy to-day. If this is done properly, systematically, and scientifically, if you please, with every symptom of our *Materia Medica*, we shall stand upon ground that never can be shaken, that will clear the skies of doubt, and enforce the righteous claims of Homœopathy. It is sufficient here to say that there is no diversity of opinion that Belladonna has produced Delirium, and we will proceed.

What other remedies have produced Delirium in proving? Everybody will turn to his repertories for answer to this question. The original and main object of the repertory has been undoubtedly to index the symptom, and as such there should be no disagreement between them. Indeed, but for other purposes, there should be no need for more than one complete repertory, and future editions should only be supplementary revisions. All condensations and peculiar arrangements should yet all perfectly agree with a complete repertory. Unless this be the case, Homœopathic *Materia Medica* can not make good its claim to a science. What is the deplorable fact? They do not agree. Errors of omission and commission are plentiful. Let us examine.

They all seem to agree in indexing Bell. under Delirium, and yet Snelling's edition of Hull's *Jahr* omits Bell. under Delirium in his *Clinical Index* at the end of his "Symptomatology," 1862. He, of course, gives it due prominence in his "Repertory," but the former omission is a discrepancy. Again, Clark, in his "Clinical Repertory" to the "Dictionary of Medicine," 1904, omits Bell. from among his list of Delirium remedies, although he gives it due prominence under "Delirium Tremens," and of course does not omit it in the "Dictionary" proper. Is this another discrepancy?

The other remedies that enjoy a similar distinction with Bell., because of frequent clinical verification, are only Hyos., Stram., and Verat. a., with Ars., Bry., Can. ind., Lach., Nux v., Op., Plumb., Rhus t., and Verat v. deserving honorable

mention. These remedies are selected for purposes of illustration. Others could be substituted. There are 330 Delirium remedies named in the 44 repertories and clinical indexes used to illustrate this paper.

Verat. a. is omitted in Clarke's "Clinical Repertory," but recognized in the "Dictionary." It is noteworthy that Bell on "Diarrhœa" and Pulford on "Rheumatism" do not name the Delirium of Verat. a. as a likely concomitant in those diseases, and this vagueness is explained by the fact that, although Delirium may be a symptom produced by Verat. a., and clinically verified, yet it may not have been verified as a concomitant of these particular diseases.

Ars. also, according to Bell, does not apply to Delirium with diarrhœa. O. E. Boericke omits Ars. in his "Repertory," appended to the *Materia Medica* of Wm. Boericke who does record it.

Bryonia. T. F. Allen omits this remedy from among the long list of remedies he indexes under Delirium, although he does give it due prominence under Night Delirium. This is a vagueness, if not a discrepancy that is frequently encountered in the various repertories. Can a remedy apply to a particular complex symptom and not belong to the general or simple symptom from which it is derived? Can it be a Night Delirium remedy and not a Delirium remedy possibly? The "Repertory of Hering's Condensed *Materia Medica*," published by this society in 1889, omits Bry. altogether, and yet Hering's "Condensed *Materia Medica*" has at least "the desire to go home," and Hering's "Guiding Symptoms" gives great prominence to its Delirium. Malcolm and Moss omit it altogether. Clarke omits it in his "Clinical Repertory," although he includes it conspicuously among his *characteristic* symptoms in the "Dictionary" proper.

We shall not continue further, and have due regard for your patience, for we can enumerate thousands of similar discrepancies and vaguenesses that exist, and at this particular time do Homœopathy's claims incalculable harm. Is anything being done to right this wrong?

What about Agn. cast., Lept. and Xan; found *only* in Knerr's "Repertory of Hering's Guiding Symptoms," as Delirium remedies, and furthermore not found in the "Guiding Symptoms" at all? Ant. s. is found only in Allen's "Symptom Register," supposed to be an index of his "Encyclopædia,"

though included under Delirium by Kent. Guernsey, on his slip for Delirium, supposed to be an arrangement for Bœnninghausen's "Therapeutic Pocket Book," and after an especial claim in his preface that he has confined himself to the original remedies, has no less than 15 to 20 remedies not found in any other of these 44 repertories under Delirium, nor in any of the other three editions of Bœnninghausen's "Therapeutic Pocket Book;" 8 or 10 additional ones found only on his slip and in Kent's "Repertory;" some additional ones found only on his slip and in Gentry's "Concordance Repertory," or Boger's "Bœnninghausen," and yet not included in the other editions of Bœnninghausen's "Ther. Pock. Book." Furthermore, we find at least four remedies *only* in Kent, and some *only* in Hering's Jahr, Clarke, Lippe, and Bœricke. Indeed, there are more than 100 remedies, by actual count, that are named only once in the 44 repertories and clinical indexes used to illustrate this paper; and an additional 100 remedies, also counted, that are named only twice, one probably copied from the other. Out of the 330 Delirium remedies named, all told, 215 are cited only once or twice. These instances are enumerated, not to condemn the repertories or their noted authors, whose works we are thumbing continuously, for none claim infallibility, but they are cursorily gathered to demonstrate another discrepancy, such as no science can consistently expect to stand upon. Their copying and recopying by successive authors is undermining the Homœopathic Materia Medica. The proper authentication of the symptom would probably justify some of these apparent discrepancies. They would, however, fall into their proper and undisputed places.

We might continue this study of the discrepancies and vaguenesses that occur in the indexical value of the repertory considerably further, but must pass on to that other use of the repertory, incorporated in the beginning by Jahr and Bœnninghausen. I refer to the co-ordination of the remedies—their relative value. This we believe was unfortunate for the Homœopathic Materia Medica. In one instance it may represent relative value for general prescribing, in another for particular diseases, in still another it may represent relative value from the physiologico-pathological standpoint, or for purposes of learning, etc., etc. Often it is based entirely on personal opinion merely, and these results have been thrown together

into a conglomerate mass, quite incomprehensible to the beginner or investigator at least, and we believe is doing our Homeopathic Materia Medica still more harm. A repertory of characteristic symptoms as defined by Hahnemann in the "Organon," a separate repertory to fully satisfy the sense of the laboratory sticklers, another based on clinical verifications, one for particular diseases on groups of diseases, even localities, another perhaps for the peculiar symptoms of our Materia Medica, etc.,—each of these implies a distinct classification and gradation of the remedies. Yet these have all been thrown together into the various repertories indiscriminately. Let us note some resulting discrepancies and vaguenesses and find how well this room is occupied in these 44 repertories.

A symptom capitalized by one author may even be omitted by another, and vice versa, and all possible shades of difference exist by the thousands. True, Belladonna is acknowledged in the first rank by all authors, yet Boger in his rendition of Boenninghausen's "Characteristics and Repertory," which later is Boenninghausen's "Therapeutic Pocket Book," puts Belladonna in the third class—Okie, Guernsey and Allen each putting Bell. in the first class in their editions of Boenninghausen's "Therapeutic Pock. Book." It must be added that Boger, however, capitalizes "Violent Delirium" under Bell. in the "Characteristics" portion of the same volume. Hyos. and Stram. are each also placed in the third class, with Verat. a. the only first grade remedy. His second grade remedies are Ars., Apis, Aur., Cup., Lach., and Lyc.,—all in a higher class than Bell., Hyos., Stram., Op., Plumb., etc. Hering's "Jahr" ranks Hyos. in the second class, while Hull's "Jahr" and Snelling's "Jahr" place it in the first, and Hering in his own works places it first. In Stram, this is reversed, Hull and Snelling rank it second, and Hering first, though again Hering in his own works places it first. In Verat. this is again reversed: Hering, Hull and Snelling disagreeing in their translation. Lippe and Allen's "Symptom Register" place it second, and H. C. Allen even third, and as said before Clarke and Boericke omit it altogether. These are again enumerated as vaguenesses and discrepancies that can and must be cleared up. Symptoms observed in provers, whether repeatedly or not, but repeatedly verified clinically will naturally place themselves with scientific accuracy into classes which can not and must not be juggled with. Is this wrong being righted?

To illustrate further. There must be a clear understanding of the process and significance of co-ordination. Why remedies are placed in the first class and when. It must be understood that a remedy may be in the first class for a particular or complex symptom, and in possibly the fifth class under the general or simple symptom corresponding, or vice versa. For example, in Kent's Repertory, "Night Delirium" has Acon. in the first class, while under Delirium it is in the second, while Stram. is in the second class under Night Delirium but in the first class under Delirium. These distinctions are very numerous, of course, and the vagueness is often confusing—even not understood by many not familiar with the repertory. A separate repertory of only the general or simple symptoms would be of great use to a beginner, if not a positive desideratum.

Again, using Kent's "Repertory" for illustration, "Delirium" has 17 remedies in first class, "Raging, Raving Delirium," 10, "Violent Delirium," 4, and "Wild Delirium," 2. Raging and Raving he accepts as synonyms, making no distinction, which is not accurate. True, Raging, Raving, Violent and Wild are all more or less synonymous, but judging from his very decided differences in co-ordinating the remedies under these various heads there should be well-defined differences of definition for the corresponding terms employed. For example, Ars. is in the lowest rank under "Raging, Raving Delirium," but in the first rank under "Delirium." Yet "Violent Delirium," which must be understood to mean "Furious Delirium" also, has Ars. in the first class, though only four remedies are in its first class. There is such a vast difference in the remedies named, and in the classes they are grouped in, that there is no wonder the younger physicians are turning to the laboratory to make our *Materia Medica* "intelligible," or giving up its study in disgust.

Now if we follow this subject through our *Materia Medica*s—Cyclopædias and Text Books—for the Delirium of Bell., Hyos., Stram., Verat. a., Ars., Bry., etc., we shall find an abundance of similar material. The time limit prevents the further enumeration of instances of discrepancies and vaguenesses that we have accumulated; and furthermore this is not intended to be an arraignment of the many faithful laborers in *Materia Medica*. We apologize here to those named thus far for the necessary illustration of this paper.

The steps suggesting themselves are similar to those taken in reviewing the repertories. First, under Delirium, notice the differences in the various authors—the omission of most common symptoms, the variety of interpretations or abbreviations, and the possible interpolation of symptoms not found elsewhere.

Then consider the co-ordination of the symptom “Delirium” and its modifications. Here a vagueness very generally not comprehended intrudes itself, and causes more confusion, if not so-called unintelligibility. Co-ordination of the remedy and co-ordination of the symptom are not one and the same thing. For example, “Delirium during chill” is considered a grand characteristic symptom of *Natr. mur.*, and yet *Natr. mur.* is only a third class “Delirium” remedy. Furthermore, “Delirium during chill” is a grand peculiar rather than characteristic symptom of *Natr. mur.* It is a symptom by which we prefer the remedy in prescribing, but is not a characteristic symptom of *Natr. mur.* by which we learn the remedy. This discrepancy or vagueness leads to much controversy also not helpful to Homœopathy. A grouping of the grand peculiar symptoms of remedy is undoubtedly valuable for prescribing purposes, and appeals to the unaided memory particularly. On the other hand, a grouping of the grand characteristic symptoms of the same remedy is undoubtedly the more valuable for learning the *Materia Medica*, though of vastly less importance for differentiating the particular remedy, and appeals to the reason. This distinction, that Hahnemann pays particular attention to in the *Organon*, is the one great cause of difference in our various *Materia Medicas*, and the bane of the Homœopathic students’ happiness, because, as previously pointed out, the distinction is disregarded.

Another great injury to our cause results because Homœopaths are inclined to line up even as antagonists to one another, according as they believe, while in truth discrepancies and vaguenesses removed, the science of Homœopathy is indisputable.

In conclusion we want to state that we have no grouch with reference to the Homœopathic *Materia Medica*. On the contrary, we contend that Homœopathy is an exact science, and that our *Materia Medica* as it now exists, unaugmented, affords and offers one of the most wonderful mines of assured wealth ever opened up to the scientific mind. We further

make the especial claim that no one as yet is at work upon this real material of our *Materia Medica* except the Homœopath, and that while this paper is destructive to our present *Materia Medica* as it stands, we claim that these suggestions are constructive, and properly carried out will give us a purely scientific and unassailable *Materia Medica*. We do not decry reproving, nor laboratory nor research work, but do enter this plea for what we believe more important—an united effort to clear up all discrepancies and vaguenesses. It can be done, and we prophesy will be done, and may the spirit of work and organization to do this work be infused into the talent of the *present-day* Homœopath.

BUREAU OF SANITARY SCIENCE

I. D. METZGER, Chairman

SANITARY SCIENCE IN RELATION TO SOCIAL SCIENCE.

BY

I. D. METZGER, M. D., TYRONE.

MAN is a social being. Much of his life is affiliated with his environments. To remove these and especially to remove his fellow associates means generally to annihilate his earthly interests and literally to destroy his physical existence. Who would want to live on this earth alone? Even those whose ostensible purpose now is to gain possession of as much of it as possible, would be glad to sacrifice all for companions, were they left bereft of all human associations. In the beginning it was found that it was not good for man to be alone and so woman was created. That this spirit of association is still extant is quite evident to every physician who witnesses almost daily the product of this endless procreation.

What relation does this sustain to Sanitary Science? To my mind, the solution of the problem of successful sanitation depends largely upon the proper solution of the social problems. Wherever people congregate and are more or less dependent upon the same conditions for maintaining a livelihood, there is established an interdependence of relationship and obligation that makes the sanitary and social questions

almost identical. Each becomes his brother's protector, at least, if not his keeper. For either one to ignore the other in sanitary measure means that both must suffer in consequence. Disease is no respecter of person. It attacks the offender as well as the offended, the rich as well as the poor, the negligent scholar as well as the foolish ignoramus.

In primeval days, among many tribal communities, the chief consideration became "the survival of the fittest." Unpromising children were left to perish by neglect or were actually destroyed, through the activities of a perverted conscience, so that the stronger might pursue their selfish purposes with less impediments. Ravages of disease in these early hot-beds of epidemics aided greatly in such inhuman propensities. The same superstitious ignorance caused these tribes to look upon serious epidemics as being pestilences sent upon them by the Almighty. Fear and despair paralyzed the wills of the unfortunates so that they made no effort to combat the disease but readily submitted to the inevitable. Victims succumbed unheralded and unheeded save by their own kin. Fortunate were they when they could flee from the scourge and find a refuge elsewhere in Nature's healthful bosom. Those were the times of sanitary and medical ignorance. Ignorance, superstition and filth have always been congenial pals. They lurk about and conspire to play havoc among the human race. These deadly foes are harbored unwittingly at times even by the very elect. The enlightenment of civilization has quickened the senses of humanity to some of the methods of prevention of disease causing even the laity to cry out for more knowledge.

Educational light clarifies the mind as sunlight purifies the air and alike is appreciated only after its beneficent affluences are manifested. The so-called "bliss of ignorance" is constantly haunted by foreboding fears of unsuspected calamities. Its possessor may sleep serenely amidst dangers which are stalking about, only soon to be steeped in grief, a helpless victim on account of his innocent hopes of safety. On the other hand happiness which is born of intelligence, is care-free. It has observed all necessary precautions and knows it is safe; anxiety is foreign to its mind because fear finds no provender there. Fear haunts the pathway of ignorance and disheartens the mind of its unfortunate wayfarer; courage patrols the pathway of intelligence and cheers its traveler with intrepid abandon.

The key to effective hygiene is education. Every physician in our commonwealth must have observed the marked advance in ideas of health possessed by the younger members of the family into whose minds the rudiments of hygiene have been instilled by the common schools. They are apt to look askance upon the untenable and often irrational suggestions on health of their parents, while they would not think of questioning their advice in business or social matters. Thus, the child becomes the sanitary leader in the family as he propagates to the parents hygienic knowledge, gained in schools, which the family physician may stintingly have withheld from them. Perhaps this reticence in dispensing needful knowledge has much to do with the lack of confidence which at times confronts the eager practitioner. The successful physician is necessarily an educator among his patrons. He must be liberal in his information concerning every diseased condition, even in its technical phases, and especially in its management. The wise look and arbitrary instructions no longer will suffice. The laity will know, and the physician who can present the most rational information will naturally be the first choice.

Satisfactory conditions as to general and personal hygiene are purely relative. What to one person may seem passable to another is intolerant. Sanitary enlightenment produces a cleanly conscience which in turn will set a high basis of tolerance and intolerance. Just as the aseptic conscience of the surgeon would cause him to shudder at the thought of inserting a non-sterilized scalpel into his patient's body, so the sanitary conscience of the alert physician causes him to abhor the pregnant garbage can, the vulnerable artesian well, the diseased-laden sewage, or the pesky death-dealing housefly. Similarly, every householder must have his conscience quickened if we shall secure effectively healthful surroundings. As one germ may be sufficient to infect and destroy the whole body, so one negligent inhabitant may haplessly scourge the whole community.

That people are not satisfied with conditions of even a decade ago is evidenced by the aesthetic awaking as shown by the home surroundings of the average family, especially in the country and small cities. This same spirit manifests itself in the larger cities by the intolerance shown to filthy and narrow streets. Even the man of straitened circumstances

is coming to realize that he has an unchallengable right to Nature's best gifts—pure air, unpolluted water and cleansing sunlight. Poverty and ignorance which formerly were yoked calamities are parting company and each is waning by the absence of the other. So, to-day, especially in this land of freedom, the most brilliant minds are springing from the hovels and are converting them into manses.

Man no longer lives to himself alone. Any attempt to do so brings him into conflict with every one about him. He runs counter to the commune spirit of the age and difficulties confront him on every side. His avaricious desires may predominate and throttle the welfare of his fellows for a season, but ere long he is compelled to recant and make amends even though it be under the guise of philanthropy. No man can be considered a good citizen until he obeys not only the statute and moral laws of his land but the hygienic and sanitary laws as well.

The social problem of the proper amalgamation of the foreign speaking peoples of our country, and especially of our commonwealth, has long exercised the minds of the more thoughtful. To my mind, the average immigrant is less obnoxious in his civic relations than in his communal relations. His reticence in consulting a physician and the latter's lingual difficulties in becoming conversant with hygienic conditions in his habitation, make these foreign settlements sort of scape-goats from sanitary vigilance. Not infrequently a community is startled in learning of wide-spread contagion of serious maladies among these inhabitants. Their secretive disposition and treacherous resortings oftentimes make it difficult to control epidemics even after being detected among them. Methinks certain systematic inspections should be made of these communities under the guidance of the state health department.

Interdependence of modern life in dairy, meat and other food products makes it imperative that the production and transportation of these be most scrupulously guarded. When each family depended upon its own productions the risk was less momentous. To-day, the vigilance must be not only local but interstate and international. The many means of rapid diffusion of knowledge and the marvelous commercial facilities, make a modern nation but one large family whose members possess a common interest in matters regarding health

as well as wealth. What affects one, affects all; hence each becomes interested in the welfare and protection of all.

Such a filial and communal interest is sure to produce marked results in the future welfare of our nation. Let the educational work proceed both in a personal and a general way. Then, better ways of living and securer protection against disease are inevitable. Let me close by repeating a former sentence: "Educational light clarifies the mind as sunlight purifies the air and alike is appreciated only after its beneficent affluences are manifested."

SANITATION AND HYGIENE OF THE SICK ROOM.

BY

H. B. REPLOGLE, M. D., ALTOONA.

THIS is a subject that may appear to most of you of little importance. Many will say, we all know how to conduct a sick room. Of course, you know, but there are many things that are overlooked. We are careless, give our directions as to medicine, baths, etc., and very often we do overlook the details of nursing, and our sick room is far from being sanitary even for a healthy being, much less so for some one whose constitution is below par. These things are so easily overlooked and neglected that a busy physician has, as he may say, little time for directing the general make-up of the most essential things necessary to a model sick room. Of course, the real model room for caring for the sick can only be found in a hospital,—even sometimes they are not what they should be. The object of this paper is not to exploit any new fangled ideas, merely as experiments, but to refreshen our memories with the things we already know and put into practice essentials that are usually neglected.

First.—General hygienic principles necessary as an aid to the speedy recovery, or, the proper elements necessary to make the sick room one of comfort, and one to act as an adjunct to the therapeutics measures used for your patient. Under this, we might bring proper temperature, sunlight, ventilation, cleanliness, etc. For those who work in institutions, this paper will be of little value; our nurses usually look after the

details there. But in our private work and among the poorer classes, our surroundings can be bettered to a very great extent, and this will go a great ways toward the recovery of our patient. First, as to temperature, this should vary from 65 degrees F. to 75 degrees F., according to the kind of illness and the resistance of the patient. Thus, a robust patient can stand and should be surrounded with a lower temperature than an anemic, thin, scrawny one. As a rule, those who have a high temperature should have a cooler room, and those with a subnormal one should have a warm room, as should also cases of shock. The only proper way to determine how the room is kept is to use a thermometer, and be sure that it is fairly reliable, at least. Don't take the patient's or attendant's word that the room was all right. A system I use is to, at stated intervals, have the attendants take the temperature, jot it down and see how much it varies in 24 hours. You will be surprised how soon they will keep the temperature as you want it. Instruct them not to make the room hot because the patient may feel cold, but in that case add external heat and more cover, etc. Keep the room as near to an even temperature as possible. If there is any variation, it should be in the morning, when the temperature can be several degrees higher than in the evening, not only for the comfort of the patient, but for the attendants as well, as at this time the body temperature is the lowest.

Second.—Select a sunny room, or, if that is not possible, one where there will be plenty of light. If that is not possible, make the best of what you have. This is essential in two ways; first, you must have plenty of light to make a careful examination of your patient; second, for the cheerfulness of the room as well as to promote general health. There are exceptions to this rule, as in acute exanthemata, but general light, especially sunlight, favors nutrition and proper bodily metabolism.

Third.—Ventilation. Always give your patient plenty of fresh air, no matter what the illness may be. This favors all the bodily functions and will often do more towards hurrying the recovery of your patient than all the medicine you can prescribe. Ventilate so that there are no draughts directly over the patient or a portion of the patient's body. Proper ventilation in the home of your patients is often a problem that will tax you to the limit. Use good horse sense and you

will always succeed. Give your directions along this line and see that they are carried out. Never give directions simply for the sake of giving them, but impress on the attendants that they must be carried out.

Fourth.—Cleanliness. This takes in bathing and sanitation of the room in general. The make-up of the room should be as simple as possible—only what is necessary to the comfort of the attendants and patient, no bric-a-brac, pictures, pennants; unnecessary drapery, lace curtains and all excess furniture should be removed. By this I mean one or two chairs, and possibly a cot, is all that is necessary, besides, of course, the patient's bed. This will serve a two-fold purpose: First, to make the room simple; second, and not least, if solicitous friends, and especially maiden ladies must visit your patient, they cannot sit down and console the patient relating how so-and-so died of the same disease after a prolonged illness. This will hasten their departure. I truly believe this increases our mortality to a greater extent than we have any idea, especially in the country districts and country towns. An old maiden lady once visited a country doctor's patient and wearied the patient with her monologue and history of other patients of a similar character. On entering, the physician noticed his patient was tired and worn. On leaving, the dear lady inquired, "Doctor, will John recover?" The physician replied, "Yes, if you stay away." The room should be kept as free from dust as possible and the windows screened on account of flies. The patient should have a cleansing bath each day, and if any infectious skin diseases, an antiseptic bath of carbolic acid 1 to 500 or 1000 or Bichloride 1 to 1000 or 2000 should be used. In men, the hair should be kept short.

In operation cases, the walls should be cleaned with a bichloride solution, or the room fumigated previous to operation. Where there are odors, deodorizers may be used in the room, such as carbolic acid, creoline, chloride of lime.

Second. Hygiene in acute contagious diseases. Here one must be extremely careful on account of carrying the contagion. The previous rules must be carried out. All soiled linen and articles removed from the room must be thoroughly fumigated. The linen must be soaked preferably in a bichloride solution of 1-1000. The room should be screened from the rest of the house by a sheet soaked with bichloride 1 to 1000, or formaline. No one should be allowed in the room

except the nurse or attendant. Dishes must be boiled or placed in antiseptics and washed separately from those used by the family.

Third. Hygiene of infectious diseases, such as typhoid fever and tuberculosis. The patient should have his or her own room, plenty of light and good ventilation. In typhoid, the glasses should be marked, as with a small piece of zinc oxide adhesive pasted on the glass. Flies must be kept out of the room. The excreta should be treated with chloride of lime, or bichloride solution 1-1000, and let stand for an hour before emptying. There should be an antiseptic solution in which to wash hands after giving a bath or otherwise attending patient. In tuberculosis the patient must use a sputum cup and under no consideration be allowed to expectorate on the floor. The room should be fumigated at least once a month with formaldehyde. If the patient be bedfast, if possible he should be moved in a reclining chair and thus permit the room to be fumigated.

If these simple rules are followed, I believe our results will be better, and we will not have so many misunderstandings with our patients.

THE MINOR CONTAGIOUS DISEASES AND THE STATE LAW.

BY

C. A. BARRON, M. D., WILLIAMSPORT.

THE attitude of the medical profession and of the laity toward the so-called minor contagious diseases, particularly measles and whooping-cough, is one that is not at all consistent with the importance of these diseases as a menace to life and health, and their economic effect. It is not difficult to understand this position, it being largely due to the fact that we have not yet gotten away from comparing measles and whooping-cough with scarlet fever and diphtheria, particularly the latter, before the discovery and constant use of antitoxin, and the establishment of a rigid and uncompromising quarantine in all cases. Diphtheria was constantly with us, the mortality rate being vastly in excess of what it is to-day varying in different epidemics, but averaging between 30

per cent. and 40 per cent. Scarlet fever raged more extensively than it does to-day, and claimed a larger number of victims. The effect on the minds of a people living in almost constant dread of these diseases was very naturally, to make them regard measles and whooping-cough with their lower death-rates, as of comparatively small significance. Nowadays, however, since the free distribution of antitoxin is causing such a marked and constant drop in the mortality from year to year that the entire elimination of death from diphtheria becomes a possibility, and since constant quarantine measures have reduced the number of cases of scarlatina, we are taking time to see that all these years measles and whooping-cough have been claiming a large death-rate annually.

From the beginning of 1906 to the present year, the number of deaths from diphtheria in this State was 7763, the number falling from 2438 in 1906 to 1217 in 1909, coincident with the distribution by the State of free antitoxin. Scarlet fever claimed 3673. During the same period measles was responsible for 4601 deaths, and whooping-cough 5111. During the two years 1906-7 scarlatina killed a total of 1247 persons; whooping-cough 2837, more than twice as many, and measles 2177 persons, nearly twice as many as scarlatina.

Up until less than a year ago the State Board of Health did not insist upon cases of whooping-cough being reported to the local health officers; and while they are more particular in that respect now, the full quarantine measures required by law are practically never established. For some reason whooping-cough is considered a light disease, and the public does not dread it. Therefore, health officers feel that it might be impossible to enforce a quarantine against it, and that this might result in a lack of respect for quarantine in more serious maladies, such a scarlet fever which, however, has killed only 66 per cent. of the number killed by whooping-cough during the past four years, and yet it is generally regarded as a much more serious affection. During the years 1908-09 the case mortality of scarlet fever was 9 per cent. plus, while that of whooping-cough was over 16 per cent.

During the past two years over 70,000 cases of measles were reported with 2299 deaths; but it is believed that a large number of the cases go unreported. Every practicing physician knows that many children suffering from measles become as sick as they can well be, and the complications and

sequelle, such as pneumonia and otitis-media add a vast deal to the sum total of its ravages with which it is not charged in the statistics.

A consideration of this matter involves a study of the probable effect of these diseases in preparing a soil suitable for the development of tuberculosis. That there is such an effect is unquestioned. That it is greater than we are able to demonstrate, we are beginning to suspect.

Glandular tuberculosis, scrofula, follows measles and whooping-cough frequently. How frequently, there is no way of telling at present, as there are no available statistics on the subject. However, we all see these enlarged cervical glands in children, and it is well to remember that nowadays, in the absence of positive evidence to the contrary, we feel safe in regarding them as being of tubercular origin.

Samuel G. Dixon, Commissioner of Health of this Commonwealth, is reported as believing that glandular tuberculosis supervenes in every case of measles occurring in a house where a case of tuberculosis exists. This is a rather startling statement, and many of us may be unready to accept it. But I for one am more unready to categorically deny it.

Officials of state tuberculosis dispensaries with whom I have communicated have noticed a marked increase in the number of these glandular cases since the epidemic of measles of the past winter. These dispensaries have been only recently established and their opportunities for observation have been correspondingly limited. Also their attention so far as I know has not been especially directed to the subject. In a very few years, however, their thousands of case histories will afford an opportunity for study along these lines which we have never heretofore had.

The small amount of evidence that I have been able to collect along this line, while positive, may be only a series of coincidences; but on the other hand tuberculosis, as is well-known, lies in wait for its favorite opportunity. Is anything more likely than that the depressed physical condition following measles is frequently seized upon by tuberculosis as its opportunity to find lodgment? There is no doubt that involvement of the faucial and pharyngeal mucous membrane does occur in measles in a manner thoroughly characteristic of the disease, and any lesion productive of epithelial desquamation, and permitting free access to the deeper layers of the

mucosa, must be regarded as favorable to the establishment of tuberculosis in its glandular form, and probably in others.

As to whooping-cough, there is more criminal neglect in connection with it than with any other disease. Associated with its complications it is very fatal, especially in children under two years of age. It is regarded in this respect as third in rank among the fatal diseases in England. Goodhard regards it as the most fatal disease in children under one year of age.

In cases of diphtheria and scarlet fever, the State law requires the establishment of an absolute quarantine, in the enforcement of which, however, there are frequent breaks in technique. On the whole, however, the measures are effective. As regards measles and whooping-cough the law provides a so-called "modified" quarantine. Even if rigidly enforced this would be ineffective in preventing the spread of infections as active as the ones under consideration, so that the fact that it is still further modified usually, to suit the convenience of any household in which they may appear, probably adds but little to the spread of these diseases. The State law is, of course, a reflex of medical opinion on this matter; and at the present time both medical and lay opinion seems to be that the hardships inflicted upon the people of the commonwealth by the establishment of an absolute quarantine in cases of measles and whooping-cough would be greater than that which they suffer at present, taking into consideration the loss of life and health, direct and indirect, as well as the financial loss such as accompanies these epidemics, and the full amount of which it is impossible to estimate. We believe that this attitude is a seriously mistaken one, and that it should be and will be changed so as to be more in accord with a widening knowledge of the fact that the minor contagious diseases have been a greater menace and a heavier burden than has been realized.

DISCUSSION OF PAPERS OF DRS. REPLOGLE AND BARRON.

DR. YOUNGMAN, of Williamsport: I have certainly enjoyed these papers and have been instructed very much. I was particularly struck with the paper Dr. Barron has just read upon the importance of control of minor contagious diseases. We have had in Williamsport within the past year a severe

epidemic of these diseases, and found it very difficult for the Board of Health to enforce these laws. The opposition comes principally from people who do not appreciate the importance of controlling minor contagious diseases. The report of the State Board of Health shows that the mortality rate from whooping cough and measles is much greater than the mortality rate from scarlet fever, and it is certainly very necessary that quarantine laws should be more strictly enforced in the cases of these minor diseases.

Dr. Barron spoke about the experience we had in the tuberculosis dispensary in regard to the increase in the number of tuberculous cases following the severe epidemic of measles last winter. I have noticed that in many instances glandular tuberculosis followed a case of measles, and many cases of tuberculosis later develop in children who are affected with this tuberculous lymph adenitis. A few years ago I was opposed to quarantining such diseases as measles and whooping cough, but during the last year I have learned a lesson that teaches me that we should pay more attention to these diseases.

DR. BOYER: It may not be improper to speak of the attitude of the parents of children and the cause of their attitude in regard to the quarantining of their little folks when they have measles, scarletina and whooping cough. Many people regard these conditions as very minor ones and treat them themselves. What we need to do as careful physicians is to try to teach and educate incompetent parents to understand that they owe some duty to the community in which they live. It is not an unusual thing for a mother to bring her child with whooping cough to your office to be prescribed for. The use of frequent fumigations with formaldehyde in the living room and sleeping rooms of the house each evening will do a great deal toward preventing the spread of whooping cough. With regard to the susceptibility to tuberculosis after measles I think there can be no doubt.

DR. MASSEY: I have had some experience in connection with the Board of Health in Berks County, and we have found that it is impossible to depend upon physicians to report their cases. We have made it a law in our little borough that whether a physician is called or not the family is criminally liable in any case of contagious disease that is not reported within forty-eight hours. If the family fails to do this they are put under absolute quarantine with a health officer in charge and not allowed to go off the premises. We supply food for a

period of twenty-eight days. We have now 210 children in the schools, and three years ago, through the ignorance of one physician, over 300 cases of measles developed in the town, followed by scarlet fever and later on by diphtheria. The people began to get scared, and we have at present strict enforcement; and I suggest to other towns or cities where they are having trouble that they make it incumbent upon the parents to report these cases. We do not close the schools. I believe it is better for the children to be kept in school than running around the streets, where they are exposed to contagion.

DR. A. E. HEIMBACH: It is a very difficult matter to tell how these contagious diseases are carried. I have read recently that in one of the largest hospitals in Germany they put all sorts of diseases in the wards together and claim that they do not spread. They believe in the theory of infection by contact. One nurse takes care of all the measles cases, another of all the scarlet fever cases, and so on. As to whooping cough, it is certainly a very contagious disease.

DR. SWALM: I would like to emphasize the point brought out by Dr. Massey. I am connected with the School Board in Pottsville, and believe very decidedly that children coming from families where there is an infection should be kept away from the well children who are going to school. Very frequently when there is scarlet fever in the house the school children when school is over go and play with children from infected houses, and in that way the disease is spread.

DR. BOWIE: I cannot understand why so many children die from measles. In my own experience there should be no death from measles. When death occurs it is from some complication and not from measles. Whooping cough is a disease that is sadly neglected. The laity seem to be under the impression that nothing can be done for it, but I believe that every case should be under medical treatment from start to finish, and I think that it is one of the most important diseases in childhood that we have to treat. I think that it is a dangerous disease and that a strict quarantine should be enjoined.

A RESUME OF THE ASEXUALIZATION OF MENTAL DEFECTIVES.

BY

ALBERT ROWLAND GARNER, M. D., NORRISTOWN.

WELL it is for our human family that Preventive Medicine is being so energetically and enthusiastically studied. Our active and efficient State Board of Health has done much commendable work in preventing the spread of, as well as the care of those afflicted with, contagious and infectious diseases. We feel with just pride that the ravages of small-pox and diphtheria have been greatly controlled. It is a source of great comfort and joy when we realize that the recent thorough and concentrated efforts in behalf of the tuberculosis victims have wonderfully reduced the mortality rate. The accrued results from this activity in Preventive Medicine are indeed encouraging, and should stimulate continued perseverance in our efforts to establish and maintain suitable laws, to control the causes as well as the conditions of all abnormalities.

Now that the state is doing so much for the prevention of the spread of physical diseases in which conditions the majority to say the least, are returned to normal health, does it not seem reasonable that something should be done to prevent the spread of idiocy, imbecility, criminal insanity and feeble mindedness, in which conditions normal health is rarely found? No doubt some will say, "Yes, but mental defectives belong to a different class." That is just the point. To what system do the greatest successes belong? To the mental or physical activities? Is it to the association and development of cerebral neurones or the capacity and size of stomach and muscles that the highest class of achievements are due? While the above crude comparisons of the two systems may not be strictly scientific, I feel sure that from the following facts you will readily see the necessity for state aid in the prevention of the spread of mental as well as physical diseases.

I quite appreciate the fact that my classification of physical and mental diseases is hardly a fit one; yet for the sake of brevity, I trust you will bear with me in the use of this categorical division. In order to save time, and to bring it home better, I shall confine the statistics as much as practicable to our own State, though in other countries and some other

States the proportionate increase of defectives is often much greater. (1) In Pennsylvania in 1890, there was a total of 15,580 defective inmates of State Hospitals for Insane, Feeble-minded and alms-houses; in 1907, the total of the same class was 25,748 at a cost to the State for that year, excluding expense of land, buildings, etc., \$2,018,573.31. I might explain that the alms-houses are not made up entirely of mental defectives, but about fifty per cent. were insane, feeble-minded or idiotic, while twenty-five per cent. of the so-called normal ones could hardly be classified as mentally sound individuals. (1) In 1890, the penal institutions, penitentiaries, county jails, work-houses, houses of correction and refuge numbered 7247 inmates; in 1907, 10,370 at a total cost for maintenance alone, of \$1,719,727.65.

In the United States:

1850	There were	6337	prisoners,	the ratio	to	population	being	1	in	3442.
1860	"	19086	"	"	"	"	"	"	"	1647.
1870	"	32901	"	"	"	"	"	"	"	1171.
1880	"	58609	"	"	"	"	"	"	"	855.
1890	"	82329	"	"	"	"	"	"	"	757.
1900	"	133280	"	"	"	"	"	"	"	586.
1910	"	would surely be	"	"	"	"	"	fewer than	1	in 500.

"The comparative ratio of criminal population in England and the United States is one to thirteen." England punished by capital punishment for such a large number of offenses that her criminal population was decreased by the fact that these certain classes could not breed any more of their kind. For many of these same offenses in the United States short prison sentences were the punishment. Punishment alone is most certainly not a cure for crime. (3) Dr. Chandler says: "Statistics show that criminals, imbeciles, rapists, idiots and the defective insane, multiply twice as fast as the rest of the population." To the medical man the reasons are doubtless quite obvious. There may be a few laymen present, however, whose experiences with these classes have been limited, and to whose interest this question is of equal importance with that of the physician. I shall enumerate a few of the more common causes or reasons why the defective classes are so pro-creative.

By virtue of the fact that the mental defective has little or no power of inhibition, according to his degree he is irresponsible; knows no limit to self-gratification; has intensity of sexual irritation (the sexual system is always given great emphasis in any neuro or cerebro-pathic case); he respects no

civil or moral law; he is no respecter of persons; and because of the connection between two members of this class on account of the abnormal sexual irritation and the corresponding lack of fear or conscience to lessen this, fecundation is naturally made more possible; and it is certainly true, that there is an accentuation of the types in the off-spring.

This, as you readily see brings us to the great question of heredity, which will give ample proof of the immense influence it plays in these types. Scientists, no doubt are correct, when they say that but one-tenth of an individual character is due to heredity and the rest to environment and other conditions. One-tenth is really a great deal when one considers the infinitely great number of reactions the individual character actually experiences. That one-tenth varying with degree from the normal line of the ancestry, is capable of causing a proportionate deviation in the posterity.

Dr. Oliver Wendell Holmes truly says, "That the best way to train a child is to begin with his grandfather," and Herbert Spencer says, "That to be a good animal is the first requisite to success in life, and to be a nation of good animals is the first condition to national prosperity."

Great care is exercised in the reproduction of pure species of plants and thoroughbred animals, and yet in Pennsylvania we are apparently not attempting to stop the excessive reproduction of human defectives.

(4) "The hereditary character of crime, and the organic penalties of natural law, were recognized even in remote antiquity. They were involved in the old Hebrew conception, which seems to have played a vital part in Hebrew life, of a God who visited the sins of the parents upon the children unto the third and fourth generation. We know also the story in Aristotle of the man who, when his son dragged him by his hair to the door, exclaimed, "Enough, enough, my son; I did not drag my father beyond this." And Plutarch puts the doctrine of heredity in a shape that is both ancient and modern, "That which is engendered is made of the very substance of the generating being, so that he bears in him something which is very justly punished or recompensed for him, for this something is he." Or again, "There is between the generating being and the generated a sort of hidden identity, capable of justly committing the second to all the consequences of an action committed by the first."

(5) Descartes says, "That if it be possible to perfect mankind, the means of doing it will be found in the medical sciences."

(6) Dr. Barr, head physician at Elwyn, has complete records of their feeble-minded children. Dr. Barr says, "An aggregate of these 5430 cases showing similarity in the preponderating influences of distinct periods gives a collection of data that should go far to establish a consensus that the strongest predisposing causes are those acting to transmit mental defects direct, or to so combine and commingle neurotic tendencies as to produce it." The Elwyn table shows the causes in operation before birth to be 64.85 per cent., after birth 32.23 per cent., and during 2.92 per cent., There are 835 cases of hereditary imbecility or 27.38 per cent.

Dr. Murdock, of the State Institution for Feeble-Minded at Polk, writes me as follows:

"We have 1535 defectives in our institution, morbid heredity is present in about 75 per cent. The per capita cost for a year is about \$200."

(11) The Norristown State Asylum has nearly 3000 inmates, 1393 males with about 20 per cent. morbid heredity, and 1519 females with about 37 per cent. heredity.

(12) Dr. Langdon Down examined 2000 cases; found well-marked neuropathic heredity in 45 per cent.

Dr. Fletcher Beach found a hereditary predisposition in 76 per cent.

Dr. Fries, out of 622 families represented at Ebberood-gôôrd, found 60 per cent. had mental or nervous diseases.

(13) Dr. Ireland claims that idiocy is of all mental derangements the most frequently propagated by descent.

Influence during gestation is marked in its effect on the feeble-minded.

(7) Ribot says, "Among the various functions which in their limited action constituted life, two are primary, nutrition, which preserves the individual, and generation which perpetuates the species,"

(8) Dr. Barr says, "An heredity of disease may be purely physiological, breaking down the physical powers, but not necessarily the mental, but heredity of imbecility is both physiological and psychological, the whole being, physical, mental and moral, enters starved upon a maimed existence, idiotic or

imbecile." There are also at Elwyn this family relationship:

3	families	with	3	imbeciles	each.
2	"	"	5	"	"
1	"	"	4	"	"

There is also one family with two imbeciles in it, with a connection of 83 mental defectives the result of a century of imbecile heredity. Another family numbers twelve, all mentally deficient. Another, three generations of defectives, maternal grandmother feeble-minded, mother feeble-minded and epileptic, father shiftless and irresponsible and unable to provide for his family of seven idiotic and imbecile children. The L. family numbering seven individuals, parents and children all imbeciles. Family history shows 32 relatives of the father to be feeble-minded, and the mother has a feeble-minded sister.

(9) Down mentions that, "In only 16 per cent. did I fail in obtaining a grave history of physical or psychical decadence." Ireland states that, "It has repeatedly been observed that families in which neuropathic members appear are often more prolific than the average." The Scottish Lunacy Commission report 126 imbecile women, all with defective children. Annual Report Mass. State Board Charities, 1872, says that, "Idiots increase in numbers, and the rate of increase is greater than that of the general population." Connecticut Commission in 1856, found 51 idiots in 17 families, also that there are two or three towns in which there are families wholly imbecile, both parents and children. Illinois State Board Charities 1870, declares the association of sexes in the almshouses, a perpetuation of the degeneration of the race.

They record:—

63	families	2	idiots,	each.
25	"	3	"	"
2	"	4	"	"
1	"	5	"	"
1	"	6	"	"
94	"	224	"	children.

(10) Dr. Cornell, Philadelphia, cites a case as follows: In an institution for the feeble-minded in Pennsylvania (and this was only one of several cases) there was an attendant employed to look after a certain number of these children. One day she came to the superintendent and said that she was going to resign. When asked why, she said that she was going to get married. The superintendent asked her whom

she was going to marry, and she said she was going to marry Tom. Tom was a feeble-minded boy in the institution.

The superintendent said, "You cannot marry a boy like that." "Well," she said, "I love Tom, and Tom loves me; and we are going to do it." In the absence of any law to prevent a person of twenty-one years (Tom was as old as this) from marrying, they got married; and the result was three feeble-minded children.

Mr. Johnstone, of the Vineland Training School for Feeble-Minded Children, says that is the experience of every feeble-minded training school in the United States.

Three years ago, I committed to the Norristown Asylum a single female imbecile, aged 20, she only knew her first name, quite indistinctly pronounced, and could only answer questions with a silly smile. She had to be watched constantly on account of her abnormal passion for the opposite sex. Though the family claims that for years she had only escaped their careful watchfulness a few times, she had already given birth to two children, and was at the time about seven months pregnant. Something was the matter with both babes.

Dr. Barr tells of an interesting and illustrative family. S. S., a prominent and talented artist, a moral imbecile, married one of three beautiful and famous sisters, connected with one of our presidential families. He was brutal and silent with his wife for forty years. There were five children, three sons and two daughters. Two sons possessed their father's brilliancy, and both were moral imbeciles, the one a liar, profligate and fugitive from justice, the other a minister, talented, untruthful, dishonest and unreliable. The latter had one moral imbecile son. Of the three normal children, a daughter, beautiful, had three sons, all mental defectives.

The "tribes of Ishmael," descendants of an escaped English convict, in the seventeenth century, present another illustration. This family was studied for forty-eight years. There were thirty families (with a possible 250) guilty of having perpetrated every known crime, with no less than 5000 degenerates. No paper on this topic is complete without recognizing the oft-repeated records of the "Juke family."

The ancestral breeding place was in a rocky inaccessible spot in the State of New York. The original was born about 1720. This man lived to old age, when he became blind, and he left a numerous, and more or less illegitimate, progeny.

Two of his sons married two out of five more or less illegitimate sisters. These were the "Jukes." The descendants of these five sisters have been traced with varying completeness through five subsequent generations. The number of individuals thus traced reaches 709; the real aggregate is probably about 1,200. This vast family, while it included a certain proportion of honest workers, has been on the whole a family of criminals, prostitutes, vagabonds and paupers. Of all the men not twenty were skilled workmen, and ten of these learned their trades in prison. One hundred and eighty received out-door relief to the extent of an aggregate of 800 years; or, making allowances for the omissions in the record, 2,300 years. Of the 709 there were seventy-six criminals, committing 115 offenses. The average of prostitution among the marriageable women down to the sixth generation was 52.240 per cent. The normal average has been estimated at 1.66 per cent. There is no more instructive study in criminal heredity than that of the Jukes family. It is stated that in 75 years, this Juke family cost the people of the United States \$1,308,000.

The question of heredity has been further reduced to cold figures by Prof. Puellman, of Bonn University, in his investigation of the descendants of a confirmed drunkard, who died early in the nineteenth century, her descendants were traced through six generations, numbered about 800 persons; of whom 107 were of illegitimate birth; 102 were professional beggars; 64 were inmates of alms-houses; 181 were prostitutes; 76 were convicted of serious crimes, and 7 were convicted of murder; the total cost to the State of caring for this woman's pauper off-spring and punishing her criminal progeny, was reckoned at \$1,206,000—and this expense has increased and continued in geometric progression to this day—for the fecundity of the irresponsible is notorious, to them children appear to be rather an asset than a liability—if, indeed, they ever give the subject a thought.

The Karnagles and many other families with a terrible heredity and cost to the country have been studied. I might mention one family in one of our towns. The father is a fugitive from justice to this country, and is now in jail. The mother is subject to maniacal outbursts of temper and rage. One son, after having "graduated from Huntington Reformatory," as he called it, was connected with one and possibly

two murders, and afterwards hanged. Another son is a fugitive from justice in Florida. Another son is in the Eastern Penitentiary. "A younger son is at Elwyn." "A little daughter the neighbors say is a bad one, and the neighbors also claim that a grown-up son in New York City is the only good one in the whole family."

"Of the inmates of the Elmira Reformatory, 499, or 13.7 per cent., have been of insane or epileptic heredity. Of 233 prisoners at Auburn, N. Y., 23.03 per cent. were clearly of neurotic (insane, epileptic, etc., origin); in reality many more. Virgilio found that 195 out of 266 criminals were affected by diseases that are usually hereditary. Rossi found five insane parents to 71 criminals, six insane brothers and sisters, and fourteen cases of insanity among more distant relatives. Koch found morbid inheritance in 46 per cent. of criminals. Marro, who has examined the matter very carefully, found the proportion 77 per cent., and by taking into consideration a large range of abnormal characters in the parents, the proportion of criminals with bad heredity rose to 90 per cent. He found that an unusually large proportion of the parents had died from cerebro-spinal diseases, and from phthisis. Sichard, examining nearly 4000 German criminals in the prison in which he is director, found an insane, epileptic, suicidal, or alcoholic heredity in 36.8 per cent of incendiaries, 32.2 per cent. of thieves, 28.7 per cent. of sexual offenders, 26.3 per cent. sharpers. Penta found among the parents of 184 criminals only 4 to 5 per cent. who were quite healthy.

One can hardly read the facts that I have just presented without agreeing with me that criminals, epileptics, imbeciles, idiots and lunatics, are all more or less related through heredity. The defect is present, and as Vidocq has said, "*Bon chien chases de race.*" It runs in the blood. Frequently criminals are epileptic, or imbeciles or both. Different generations may alternate between crime, insanity and imbecility. There is a great deal of masturbation in jails and reform schools.

Here is a great problem for us to solve, since its solution certainly must begin with the medical men. Of about 30,000 defectives in the State of Pennsylvania at the present time, at least one-fourth are in a position to procreate more of their kind. Think what that means, in a few years? Criminals and lunatics cost the State about four dollars a week for main-

tenance alone. But cost, while truly a great item, is not the only side to consider. The humanitarian side is certainly higher and nobler.

Education has been and continues to be tried. With what results? Whatever it does accomplish, education only places us face to face with a still more difficult problem. Education can never decrease the terrible increase in productiveness of defectives. We can not depend upon our poor criminal and imbecile. He has not the right material in him. Can we blame him? He is only a product, for the making of which he is in no way responsible. Have we a right to continue to waste the beauty and resources of our great State, on a degenerate race, depriving our own healthy posterity of many beauties and privileges that might have been, had theirs not been used up on a helpless, worthless and injurious class?

Protection of society and the imbecile for the mutual benefit and protection of each entails an enormous, increasing and unnecessary expense. Many of these imbeciles of the higher grades could be useful and self-supporting if they had their freedom, but on account of the fact that they are sure to breed more of their kind, they must of necessity be a State charge.

It is known that the X-ray will cause sterility for a longer or shorter period, but, on account of lack of experience and experimentation, as well as possible danger, this method is hardly advisable. Castration for a certain type of rapist or the most vicious sexual degenerate might prove satisfactory in certain cases, but for a general measure is rather severe and would be all the more difficult to make its compulsion by law.

(15) Dr. Harry C. Sharp, of Indianapolis, who was for thirteen years chief physician of the Indiana State Reformatory, has for nine years been performing vasectomy on criminals, two hundred of whom gave their consent and nearly three hundred were done according to the law which he was instrumental in having passed in Indiana. (2) Dr. C. V. Carrington, Surgeon to Virginia Penitentiary, and others who have performed the operation, claim that it positively stops procreation, is not painful or serious and there is no cystic degeneration in the testicle. They also claim that the inhibitory centres are greatly strengthened, has cured many profound masturbators, given neurasthenics more strength and better dispositions, has made vicious criminals and imbeciles

more amenable to authority and more civil to their associates. It is further claimed that normal sexual desire or function is not in any way injured, excepting possibly a slightly lessened discharge during orgasm. Therefore man's liberty is not abridged.

It is, of course, claimed by some that the only benefit aside from fecundity is due to suggestion. I can hardly agree with that idea fully, while I believe strongly in the great influence of suggestion. I believe that suggestion is a factor, but not a strong one in every case. There might be something in the Brown-Sequard theory, "That the general dynamogenic effect was due to some unknown substance formed in the testicle and subsequently passed into the blood." "More recent investigators, as Poehl, Zath and others assert that it is found in the external secretion." Brown-Sequard, an early observer of the effects of secretions of the reproductive glands, said, "That an extract from the fresh testis, when injected under the skin or into the blood current, had a remarkable influence on the nervous system, mental and physical vigor; that the spinal centres were greatly improved not only in cases of general prostration and neurasthenis, but also in the case of the aged." I can more readily see where suggestion might be the cause in this class of cases.

Suggestion has a great influence, but unless it is carefully and skillfully followed up, the results are frequently of short duration. Several years are supposed to have elapsed in some of the cases mentioned by Drs. Sharp and Carrington and the beneficial effects are claimed to have been permanent. I will not attempt to theorize as to the cause of the benefits of vasectomy, but suffice it to state that from reading only I am satisfied that it is a good treatment under some circumstances.

We, of course, have ample proof of the control castration gives over the stallion and bull. Indiana was the first State to pass any law controlling asexualization of defectives and at present Connecticut, California and Utah all have laws. New Jersey failed to pass a good one last winter. Pennsylvania had the best bill that I have read. It passed both the House and Senate in 1905, but Governor Pennypacker vetoed it.

The time is now at hand when the people of Pennsylvania must throw off the cloak of modest superstitions or ignorant prejudices and acquaint themselves with the facts so they may act accordingly.

With your permission I will close with a letter from Dr. G. Stanley Hall. This is a copy of the letter I received from President G. Stanley Hall, Clark University, Worcester Mass.:

September 8, 1910.

DR. ALBERT ROWLAND GARNER,
626 DeKalb Street,
Norristown, Penna.

My Dear Sir:—

In answer to your favor, would state that many years ago, I became interested in the castration of idiots which has long been practiced at the Baldwinville cottages in this State. Now that eugenics has taken the matter up and as it has been started as a practical matter in various other places so that it has quite a literature, my interest has increased. I am not entirely ready to endorse it as a wholesale scheme until I see specific regulations formulated. That and tubal ligature certainly relieve institutions where high-grade imbecile girls are reared from the danger of flooding the land with degenerate spawn, like the Jukes, the Karnagles, etc..

Very truly yours,

I will quote in part a note received from Martin W. Barr, M. D., Chief Physician, of Pennsylvania Training School for Feeble-Minded Children, Elwyn, Pa., in which he says: "I am a believer and an advocate of asexualization. I prefer castration, however, to vasectomy. You will find my ideas more fully expressed in my book, 'Mental Defectives,' which I think you can find in almost all the public libraries."

This is a copy of the bill presented to the

LEGISLATURE OF PENNSYLVANIA.

No. 35 Session of 1905.

AN ACT

For the Prevention of Idiocy.

WHEREAS, Heredity plays a most important part in the transmission of idiocy and imbecility, therefore,

Section I. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General

Assembly met and it is hereby enacted by the authority of the same, That on the first day of July after the passage of this bill it shall be compulsory for each and every institution in the State entrusted exclusively or especially with the care of idiots and imbecile children to appoint upon its staff at least one skilled neurologist and one skilled surgeon of recognized ability whose duty it shall be in conjunction with the chief physician of the institution to examine the mental condition of the inmates.

If, in the judgment of this Committee of Experts and Board of Trustees procreation is inadvisable and there is no probability of improvement of the mental condition of the inmate it shall be lawful for the surgeon to perform such operation for the prevention of procreation as shall be decided safest and most effective, but this operation shall not be performed except in cases that have been pronounced non-improvable after one year's test in institution.

I will also present a copy of the Indiana laws:

AN ACT entitled an act to prevent procreation of confirmed criminals, idiots, imbeciles, and rapists; providing that superintendents and board of managers of institutions where such persons are confined shall have the authority and are empowered to appoint a committee of experts, consisting of two (2) physicians, to examine into the mental condition of such inmates.

PREAMBLE.

WHEREAS, Heredity plays a most important part in the transmission of crime, idiocy and imbecility;

PENAL INSTITUTIONS—SURGICAL OPERATIONS.

Therefore, Be it enacted by the General Assembly of the State of Indiana, That on and after the passage of this act it shall be compulsory for each and every institution in the State, entrusted with the care of confirmed criminals, idiots, rapists and imbeciles, to appoint upon its staff, in addition to the regular institutional physician, two (2) skilled surgeons of recognized ability, whose duty it shall be, in connection with the chief physician of the institution, to examine the

mental and physical condition of such inmates as are recommended by the institutional physician and board of managers. If, in the judgment of this committee of experts and the board of managers, procreation is inadvisable and there is no probability of improvement of the mental condition of the inmate, it shall be lawful for the surgeon to perform such operation for the prevention of procreation as shall be decided safest and most effective. But this operation shall not be performed except in cases that have been pronounced unimprovable.

Provided, That in no case shall the consultation fee be more than three (\$3.00) dollars to each expert, to be paid out of the funds appropriated for the maintenance of such institution.

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DISCUSSION OF DR. GARNER'S PAPER.

DR. W. D. BAILEY: This is an interesting presentation of a very important subject, a subject which has several aspects from which we may approach it. It has the purely scientific aspect, which is technical to the physician; it has the legislative aspect, which is important to our law-makers; it has the popular aspect because the taxpayer has to put his hand in his pocket and support a large number of these defectives. The legislator comes to us and asks for the medical status of this problem which we must be prepared to give him without prejudice or mistake. Since the operation for the asexualization of defectives is practically without mortality that does not

stand in the way of medical influence in favor of its performance; so that we come back to the question of proving beyond doubt that the defective anatomical criminal and the anatomical immoral do propagate their kind. Then we are prepared to advise and strongly advise legislation in this direction. But here is the point, and the point to me is a difficult one, and that is, where are we going to draw the line; where are we going to stop? I cannot answer that question to my own satisfaction. We have the absolute imbecile, in which type there is no question in my mind as to the value of asexualization. Higher in the line are mental defective varying from the imbecile all the way up to the lesser degrees of defectiveness. Some of these defectives are the result of physical ills, ocular troubles, ear troubles, defects which are removable. We must draw the line somewhere, and herein begins our difficulty. If we suggest legislation to unsex the criminal you will hear ministers get up and say this is our job and not a medical one. It is not a preacher's job at all. The average criminal is anatomically a criminal, and the records of penal experience the world over show that our methods of treating the criminal by existing legislation is a failure. In the established criminal I am heartily in favor of eliminating his type because we know that he reproduces his kind. Again, we come to a still more difficult class. Just as some people are absolutely tone deaf, so we have people, otherwise intelligent, perhaps even brilliant, who are kindred to this tone deafness morally—men and women who are moral defectives to whom the altruistic sense is as absent as is the tone sense absent in the tone deaf. We see these people in law, in medicine and in all walks of life; men who will do all sorts of underhand tricks and who will stoop to anything for their aggrandisement without considering the rights or privileges of others. These people with no intellectual defect are moral imbeciles and much more dangerous to the community than the poor little imbecile who sits in the corner butting his head against the wall. Who is going to unsex these people? And yet they should be unsexed or something should be done to radically eliminate them.

DR. ASHCRAFT: I would like to say that vasectomy is a minor operation unassociated with any discomfort or any mortality practically. As for the necessity of the operation, I think that must be left with the alienist. There are certain cases of gonorrheal infection, double attack of epididymitis, which asexualise the possessor without the necessity for any surgical procedure. The operation of vasectomy can be per-

formed readily by injecting a mild solution of cocaine, picking up the cord of the vas, severing it, tying the two cords together and dropping them back into the scrotum. The wound is sealed with collodion and soon heals.

DR. NESBIT: The sociologists have awakened the medical profession to the backgrounds of disease. Dr. Bailey has suggested another phase of the subject of dealing with defectives, that is the politico-economical phase. Eventually the economics of the situation is at the bottom of this question. How shall we conserve to the individual all to which he is entitled, and how shall we, on the other hand, protect society from the individual? Now, while the ideal treatment of criminals of all these types is the asexualization of them, the question is where to draw the line. Education of society in this question seems to be the most important thing. Practical eugenics has not yet been adopted by the public; but physicians can do a great deal to develop public opinion along these lines.

DR. GARNER: It seems to me that the more we become acquainted with the facts connected with this subject, the more people write and study about it, the more likely we are to arrive at some practical method of drawing a line as to the class of cases in which asexualization should be carried out and those in which it should not.

DISCUSSIONS OF PAPERS PREVIOUSLY PUBLISHED.*

DISCUSSION OF DR. BOYER'S PAPER.

(See Hahnemannian Monthly, February, 1911, page 90.)

DR. THEODORE J. GRAMM: I think that the summary that Dr. Boyer gave in closing his paper is really the gist and substance of the whole paper. I have occasion to see pneumonia in young children at times—mainly broncho-pneumonia—and the treatment that I pursue in these cases is altogether according to the homœopathic indications. I think that in this one disease we have demonstrated the fact that an observation of nature, made however long ago, if it be a correct observation, is one that holds good for many years subsequently, if not for all time. I think that if our remedies are prescribed according to their indications that we have an ideal form of treatment. It is scarcely necessary to mention that the most important ones are aconite, bryonia and veratrum, in the early stages; later on, tartar emetic, hepar and sulphur.

*As the result of an oversight, the discussions of the following papers were not published in connection with the papers as usual.

DR. H. W. SCHWARTZ: I thoroughly enjoyed this paper. In the matter of treatment I do not often hold to a routine method; but in the case of pneumonia I find that aconite used routinely will prevent almost every case. I have never seen it fail.

DR. M. M. FLEAGLE: If you have in these cases of infantile pneumonia a very unpromising outlook—you think the child is going to die—look up lycopodium carefully.

DR. F. W. BOYER: It might not be unwise for me to say that when I recommend the use of stimulation and control of the heart with material doses, that they do not preclude the use nor the necessity for any well selected remedies. In the majority of instances of feeble babies respiration is rapid, heart action is rapid, and within the first twelve hours temperature is very apt to rise, even though the hands and feet may be cold. These children very often present a very characteristic carbø-veg. appearance. If, in addition to that, they have a swollen abdomen and other lycopodium symptoms, use lycopodium. The symptoms in a child, a new-born infant, are objective only. I doubt very much whether there is any great number of remedies that can be selected in the treatment of pneumonia in the new-born. Nature will do something for the child if you give it a chance.

DISCUSSION OF DR. WHITE'S PAPER.

(See *Hahnemannian Monthly*, February, 1911, page 101.)

DR. BETTS: I really think I have not anything special to add to what the doctor has said. It is surprising how many cases we meet in hospital work, in dispensary work, who never consult a physician until the approximate time for the delivery of the child. So much can be done for an expectant mother by way of advice, etc., especially if it is her first child, if a physician is consulted before the time of labor. Of course, that goes without saying.

I think the time is coming when a majority of women will be delivered in obstetrical hospitals, that is in our large cities. Of course, it will probably never be advisable universally, especially where a woman lives some distance from a hospital; but there are so many advantages, from the physician's standpoint, as well as from the patient's standpoint, that I think every one will come to see it in that way some time, and we will no more consider delivering a case in the average private home than we would consider having an abdominal operation (if it could be avoided) in a private home. It may be a radical idea, but I think the future will bear me out in that thought.

DR. MERCER: About using alum on the nipples. I think, from our experience in the hospital, that we have gotten better results from glycerin, having the nipples wet before the glycerin is put on; and we frequently use cocoa butter. I think alum, or alcohol hardens the nipple; it is not so much that we want to harden the nipple, but to make the external surface more pliable, because the harder you make them, the more liable they are to crack.

DISCUSSION OF DR. A. E. HEIMBACH'S PAPER.

(See *Hahnemannian Monthly*, February, 1911, page 96.)

DR. MERCER: I think the doctor covered the subject very well. The perineum of some individuals is lax, while the perineum of others is firm and will not relax no matter what you do. As regards the use of a douche, many different opinions exist. Of course, the main thing is to have absolute asepsis to start with; then you don't require anything afterwards. As far as the urine is concerned, I consider the urine aseptic.

DR. D. B. JAMES: There is a certain proportion of cases that will undoubtedly tear in spite of all efforts at prevention. In the doctor's paper he speaks about introducing the finger into the rectum to protect the rectum. I certainly cannot agree with this. I see no reason why the finger should be introduced into the rectum at all. If we do so the finger becomes dirty and the chances are that when it is taken out to grasp the suture we may infect the perineum. Another point I wish to make is in regard to catheterization of the patient. I have as much respect for the bladder almost as for the abdominal cavity. I know of numerous cases that have been infected with catheters, and we also know that cystitis is a very hard disease to cure. I believe in the patient being allowed to sit up, even on a commode, a short time after delivery, sooner than introducing a catheter into the bladder.

DR. F. W. BOYER: I would say that it has been my rule for three or more years to have my patients urinate on a commode. If the labor has been normal, I encourage them to get out of bed to urinate every time. I have never seen any bad results.

DR. THEODORE J. GRAMM: I think the doctor has covered the essential points of the subject in a most admirable style. I believe the most important thing in preventing a tear of perineum consists in allowing and favoring a slow delivery of the head. Now these structures are dilated, and if, in the course of the repeated labor pains, the normal congestion be allowed to continue and to effect those tissue changes, which it will, the perineum will not be likely to tear. If, on the other hand, forceps be applied too soon, or if the case be delivered too rapidly, we are likely to have lacerations of the perineum. Consequently, in difficult deliveries I feel that it is an important matter to deliver the head slowly in order to prevent laceration.

Now it is not the lacerations that appear at the surface that are the important ones, but those affecting the levator ani muscle.

I would like to say that I think the time has come when teachers of obstetrics should take a more definite stand upon the subject of episiotomy. I have never seen that operation to be effective. I think it is based entirely upon a false conception of the physiology of the perineum. It lacerates the muscles and the attachments of the muscles at the sides of the vulva, and the coaptation is not likely to be made with exactness; and, furthermore, it is quite common in cases where this operation would seem to be required at all to eventually lacerate the perineum. On this account I would like to utter a word against episiotomy.

DISCUSSION OF DR. MERCER'S PAPER.

(See *Hahnemannian Monthly*, February, 1911, page 103.)

DR. F. W. BOYER: While not entirely appropriate, I think it would be worth while in this relation to speak of a case that occurred in my practice during the past year. One of my patients, a young woman about twenty-eight years of age, became pregnant during the summer of 1909. She went along gradually without any symptoms whatever. I think she was about three and a half months advanced when she developed a pain in her left groin, and was confined to bed for several days. There was no temperature, no enlargement of abdomen, and no discomfort after three days. She then went about for a week. At the end of that time she developed another sharp pain in the left iliac region, became thoroughly constipated, developed temperature and some increased respiration. On the third day I discovered in her left iliac region an enlargement. On the fourth day it was decidedly enlarged and very sensitive; no other symptoms evident. I then called in a local surgeon, and we felt it was best to operate. On operation we found a hematoma that weighed 11 ounces that was encysted in a membrane. I think her uterus was pregnant at the time about four months. The hematoma was removed; she recovered without any unusual symptoms, and gave birth on February 11th to a boy weighing $7\frac{1}{2}$ pounds.

DISCUSSION OF DR. BETTS' PAPER.

(See *Hahnemannian Monthly*, February, 1911, page 108.)

DR. THEODORE J. GRAMM: I am greatly interested to see this admirable presentation of this subject, which I have been interested in for a number of years. The work of foreign investigators has shown that we have spoken entirely too loosely of the subject of endometritis. Many forms of endometritis simulate each other very closely, while others are quite different. I think Dr. Betts is entitled to much credit for having translated into English much of the original work of the men abroad.

DISCUSSION OF DR. RIDGWAY'S PAPER.

(See *Hahnemannian Monthly*, February, 1911, page 117.)

DR. MERCER: I would like to ask the doctor whether she washes out the uterus in every case of labor or only in cases that are suspected of being infected. I do not favor going inside the uterus unless you are sure you have some very good cause. In a case of retained membranes, if you have examined the membranes thoroughly and know that they are complete, then there is nothing inside the uterus to cause disturbance unless you have infected the patient. As to repair of the cervix immediately after delivery, I think you will find that few authors recommend it.

DR. THEODORE J. GRAMM: I think the doctor is advocating some rather

radical measures when it comes to curetting every uterus, as I understand it, after delivery. The fact of the matter is just this: here in America we have not the facilities, or we have not the interest, or for some reason we do not examine our cases statistically with anything approaching thoroughness, as is done abroad. The statements that have been made by the doctor in regard to the radical measures that she has suggested have been the object of thorough research in thousands of cases. Recently a physician has advocated that the uterus should be examined on the third day and blood clots removed. Now that's not very radical, and yet that man has been condemned according to the results of statistics in every place where the method has been tried. He has not to-day an adherent worth counting. I do not wish to criticise the doctor for doing these things. I have perfect confidence in her statement that she has treated eighty cases with success, and I am very sure that other operators will be able to do the identical thing. But what are we going to do with the man who has not had the training and experience in the use of antiseptic methods that are necessary when such measures are to be employed? So I say it is a very risky thing to advocate any such procedure. Now why? For the very simple reason that a delivery is not a pathological condition. For heaven's sake, let us remember that. It is a normal, natural, physiological function that has been performed, and why you should clean out the uterus in every case of delivery I cannot conceive. Now another thing. We have quite accurate statistics in regard to gonorrhœa. I was criticized in the American Institute of Homœopathy for saying that 70 per cent. of the people have or have had gonorrhœa. That observation has been verified over and over again. Now the absorption from the uterus of lochial discharge is practically nil if septic micro-organisms are not present. There is not an absorption of septic matter. The substance or lochia is, I grant you, offensive; but it is not poisonous in the manner that has been inferred in this paper. If there are micro-organisms there, or if there is gonorrhœal infection, you may get inflammation; but if the lochia is normal the micro-organisms, which must necessarily be there just as they are in your stomach or in your mouth in order that the physiological functions shall be performed, those micro-organisms are not dangerous to the patient. We find in our large hospitals women who are overtaken in labor in going to a hospital, while at work, and amidst surroundings that you will surely say are not aseptic. Why is it, then, that patients delivered in such unsanitary surroundings don't get sick? Why, because the inside of their body has not been interfered with; you have not introduced into the uterus by an examination any septic matter. Do you know that when a case of septic inflammation takes place in some of the large clinics abroad that the first question asked is: "How many times has this woman been examined?" That's the first question asked, and I hope you don't want to tell me that those men are not versed in aseptic surgery. Now, therefore, I argue that while the doctor may carry out this method successfully, I hope that it will not become a general practice, and I hope that it will not have the endorsement of anybody who is first in obstetric practice. Now, I am connected with a similar institution, and in that institution we get some of the worst cases that occur in the city of Philadelphia. In ten years I have not lost a case in

confinement from septic infection; don't know what it is; have no experience in septic infection in that class of people—the lowest form of humanity that exists in the city of Philadelphia. We have a mortality rate of which I have cause to be proud, and the cases come from the very worst cases. They are treated not by interference, not by frequent examination, but they are let alone. Of course, in certain conditions of infection, when venereal disease exists, we treat that beforehand. In routine practice I do not often give a vaginal douche. The only thing approaching routine practice where the douche comes in, is when the temperature goes up to 100 I am to be informed. I then determine what the matter is. Then, if the temperature goes up to 102, the woman receives a vaginal douche. But in this long period of time I think I have only had to wash out the uterus in three cases at the outside. Again I say that this practice that is advocated by the doctor is one that is admirable for a skilled person, but it should never become general practice.

DR. SLOAN: I would like to add one thing. It takes a course of hospital training, both for the doctor and nurse, to develop surgical technique. The result is that if I am called into a case of confinement that has not been examined I never worry about the case becoming infected. But if I have had to examine the case I never really feel easy in mind, no matter how careful I have been that infection is not going to occur. I also warn my patients to keep their fingers and hands away from their private parts and not to adjust the vulvar pads themselves.

DR. J. M. HEIMBACH: I would like to bring out a point regarding infection, and that is the necessity of cleansing the finger nails. I think it is one of the biggest sources of infection we have. In regard to sewing up the cervix, I never sew them up unless I have to. I have been obliged to, and it was not a very easy matter to do; it is difficult to tell what you ought to sew and what you ought not to sew.

DR. MARY D. RIDGWAY: The question has been asked, do I swab out the uterus in every case? Yes, I swab it out in every case. With reference to some of the remarks that Dr. Gramm has made, I would like to urge the medical profession to examine each case daily. The usual routine of the physician when he comes in is to ask how the patient is doing, and often many abnormal conditions are overlooked. I have examined many after-births and concluded in my own mind that they were clean; but I was amazed when I went in the uterus and found that there was so much residuum. Leaving the blood clots and pieces of membrane is apt to create a low grade of inflammation. I admit that many cases do get along without this procedure, but many of these cases get up with leucorrhœa and have a great many disturbances afterwards. If a physician is capable of putting stitches in the perineum, if he is competent to take care of obstetric cases at all, he ought to be so thoroughly versed in surgical asepsis that he ought to be able to take care of the inside of the uterus. My experience has been in the poorest districts and with the ordinary neighborhood woman as a nurse to help out. I am very anxious to see this method adopted.

CONTRIBUTED ARTICLES

THE PROBLEM OF THE BACKWARD CHILD.

BY

P. R. VESSIE, M. D., CLEVELAND, O.

THE terms "backward," "abnormal," "subnormal," "feeble-minded," "nervous," "delicate," "peculiar," "odd," "stunted" and "puny" apply to so many mixed types and exceptional individuals that an acceptable standard or even artificial classification of mentally and physically deficient children is quite impossible. Differentiation, therefore, of the large assortment of these patients is difficult, inasmuch as the intellectuality in so-called normal children is of such a various, perplexing and uncertain range. In speaking of these "unstable," "eccentric," "freakish" and "neurotic" children no actual knowledge is conveyed of affections they are suffering with.

By a *resumé* based upon clinical studies of individual cases it has been found that mental and physical deviations are, as a rule, the result of injurious influences acting on the central nervous system already engendered with an inherited weakness. Furthermore, disastrous consequences are observed in children in whom several of these blemishes have combined even when the hereditary taint was seemingly slight. It is instructive to note, in reviewing the family histories, that the mild degrees of nervous diseases prevail in the family element. Mental diseases, epilepsy, alcoholism, tuberculosis or lues may be the origin or cause. The growth of a child may become arrested by some acute disease—scarlet fever, measles, diphtheria, whooping cough, etc.—and leave defects. Yet, educators and parents are unaware of the actual condition and do not know what necessary tactics to pursue in order to effect results. Elucidation of the nature of these defects with their subsequent effects and enlightenment on expedient measures are therefore essential to those who concern themselves on this subject.

It is the consensus of opinion that a child is considered back-

ward or deficient if it has difficulty in acquiring the three R's (reading, writing and arithmetic) in graded schools. There is a glaring absurdity extant which condemns too many children as being mentally deficient. It is very often found that the unfortunate ones are not deficient by virtue of mental inferiority or bias, but because they are sufferers of defective speech, eyesight, hearing or obstructed breathing caused by the presence of adenoids. Some children are tardy in speaking, stutter or articulate improperly, simply uttering a mere gibberish or baby talk. We must also consider those that suffer with moral peculiarities, perverse tendencies, dietetic imprudences or have unclean habits.

PHYSICAL IMPERFECTIONS.

Mental backwardness is generally accompanied by characteristic bodily ailments of some sort. This is overwhelmingly proven by clinical facts. The appended partial list is illustrative:

Adenoids	Fall, effects of.
Anemia	Growth, stunted, backward, arrested.
Aphasia	Head, misshapen.
Appetite, capricious or ravenous	Hysteria.
Bed-wetting	Infancy, long illness during.
Belly, potted	Lips, cracked.
Brain, defective development of	Nervousness.
Chorea	Night terrors.
Convulsions during infancy	Nourishment, poor.
Cretinism	Organs, underdeveloped.
Deafness	Paralyses, various.
Deformities	Rickets.
Diarrhoea	Salivation.
Disease taints	Scrofula.
Dumbness	Sleeplessness.
Ear diseases	Snuffles.
Enuresis	Spinal curvature.
Epilepsy	Speech, tardy or defective.
Evil habits	Teeth, rudimentary or poor condition of.
Eye defects	Tonsils enlarged.
	Vaccination, ill-effects of.

TREATMENT.

In the words of the late J. C. Burnett, "the best treatment of backwardness of children which one usually encounters consists in gymnastic, climatic, hygienic and dietetic advantages, together with special methods of instruction, all of which proceedings may be more or less sound and laudable, but in many

cases they are not sufficient. The treatment which I advocate does not exclude any of the above mentioned measures, but is something quite different, viz., to rectify the wrong underlying the said backwardness, to cure the diseased organs or parts, to rouse them medicinally from torpidity, or to cure the disease of the individual as an entirety, or to get rid of the perverted or other morbid conditions due to hereditary diseases and taints, or to shocks, falls, blows, fits or other previously overcome accidents and diseases."

The exciting cause must be eradicated from the very beginning. In consequence of this, secondary symptoms manifesting themselves in backwardness, will logically disappear. Systematic education can then be instituted with impunity after the vindication of a physical constitutional weakness. Children may then be sent to a healthful climate, the seaside or country home to finish and perfect their growth.

The earlier the specific defects and convincing symptoms are recognized and the sooner the constitutional wrong is cured and the education is systematically outlined the better is the possibility of achieving gratifying results. One must not leave the backward child on its own resources and trust to the spontaneous outgrowth of abnormalities by postponement. Mental progress is derailed with absolute certainty in such instances of sheer negligence. An opportunity should be tendered them so as to avoid progressive gravitation as well as coping with the impossible chance of outgrowing such serious afflictions.

Enthusiasts have long felt the need of a better system for the education of these children. The special segregated classes which have been established and conducted at a great loss and cost seem to have but superficially touched upon the all-important problem with little understanding. The individual case requires absolutely individualized and expert attention. The work of an institution should consist in the daily record of important incidents, symptoms, progress and defects of each case. The moral treatment in certain children requires firmness as well as kindness, but no sympathy. Children would benefit immeasurably by constant medical oversight.

CONCLUSIONS.

The main object in the care and training of backward children from a medical standpoint is :

- (1) To eradicate the various morbid symptoms;
- (2) To convert the perverted tendencies into a moral disposition; and
- (3) To replace the arrested growth by a natural physical development.

The main object from an educational standpoint is:

- (1) To inculcate the brain with an impulse so as to comprehend the elementary, physiological functions in the arts of reading, writing and arithmetic; and
- (2) Thereby to learn to reason logically; and
- (3) Thus to become useful members of society instead of becoming a public burden and everlasting pensioners.

BEZOLD'S MASTOIDITIS; A FURTHER SERIES OF CASES.

BY

GILBERT J. PALEN, M. D., PHILADELPHIA, PA.

SINCE writing a former paper on this subject, (*) the author has had under his care four more cases which were quite typical of this condition. The records of these cases follow: Case 1, Kathryn T., age 21 years, October 24th, 1910. Five weeks ago, following the use of a nasal douche, the patient blew her nose and felt as if she had forced something into her left ear. This was followed immediately by dull pain, which lasted for twelve hours, when a discharge appeared. The discharge continuing, she consulted Dr. A. H. Friedman who treated her for three weeks, at which time the discharge ceased. She then developed pain back of the left ear associated with tenderness. Post auricular swelling occurred one week ago. Status: Some fluctuation over the left mastoid process, marked protrusion and swelling under the mastoid and trapezius but no fluctuation. The left canal appears irritated and slightly swollen, the swelling being close to the orifice. Unable to see landmarks of the drum, the latter appearing covered with desquamated epithelium and bulging. Shortened aerial conduction Weber's referred to

* Bezold's Abscess. A series of cases, read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1910.

left ear. The drum was incised freely with but little discharge.

Patient was admitted to the Hahnemann Hospital at noon October 24th. Temperature was 100 3-5 F. and remained at this point all day. Next morning temperature 99 1-5, pulse 84, patient has slight pain in the left mastoid. Patient was operated on October 26th., the temperature at that time being normal and pulse 70.

Operation. After incision had been carried to the bone through the muscular fibers of the tip, there was a free flow of pus and the finger could be inserted through the incision directly into the posterior portion of the digastric fossa. The outer mastoid plate was very irregular and dense. When this was removed, there was found marked destruction of the mastoid cells with necrosis of the inner plate and a large exposure of the lateral sinus, which, however, was well walled off. A grooved director could be passed from tip downward and backward beneath the muscles of the neck, the entire inner and anterior surface of the mastoid tip being necrotic. A counter incision was made at the bottom of the abscess cavity and drained. The case ran a very normal course and left the hospital on November 7th, apparently in excellent condition. (This patient later developed brain abscess and will be reported in a subsequent paper on this subject).

Case II. Joseph F., age 22 years, February 21st, 1911. Patient was in good health until June 24th, 1909, at which time had tonsilitis and recurring catarrhal inflammation of the ears with no discharge.

Present condition came on two months ago when, following target practice on one of the U. S. Ships, on coming out of one of the turrets he discovered that he was deaf and that there was a decided sense of stuffiness in the ears. Hoping to relieve this, he irrigated both ears: Following this there soon occurred pain and discharge from the left ear and subsequently to this, a swelling just below the tip of the mastoid (the patient could not state just how soon this occurred after the discharge appeared). This swelling and pain disappeared, the discharge continuing until three weeks ago, when the patient experienced pain in the mastoid and again noticed a swelling in the neck below the tip. On February 21st, 1911, he came to Hahnemann Hospital Dispensary. There was found tenderness over the mastoid, especially marked over the

emissary. The contour of the tip was gone and there was distinct bogginess along the posterior border of the sternomastoid muscle. The drum was thickened and perforated in the lower posterior portion. Aerial conduction was shortened, Weber referred to the left ear, hearing, whisper on contact.

Patient admitted to the hospital the same day, operated on February 22nd. The mastoid proved to be very dense; the outer plate rough and hard; the muscular attachments being placed higher up than the average case. The antrum was further posterior than usual but clean; there was no special cellular structure except in the tip where two large cells were found, these being broken on the inner surface and there were found fistulae leading from them to beneath the sternomastoid muscle. The patient was discharged on March 17th. He was last seen March 27th when the wound was almost healed.

Case III. Janette F., aged 8 years, March 16th. Patient has always been well, with exception of measles at two years of age. No ear trouble at that time. Has had frequent attacks of ear ache since then but never any discharge. Present condition came on nine days ago with pain in the left ear. Four days after onset of pain, soreness started in the mastoid region and a swelling which spread rapidly into the neck. *There has been no discharge from the ear.*

Status: Patient dull, apathetic, temperature 103.4-5, pulse 130. There was a large brawny swelling extending from above the antrum to about an inch below the mastoid tip, with tenderness over the entire area. There was fluctuation over the mastoid but none over the swelling in the neck. The outline of the tip was gone and the muscles appeared raised. Inspection of the drum showed this to be pale and markedly bulging. No evidence of a perforation. The incision of the drum was followed by a discharge of thick muco-pus. Patient was admitted to the Women's Homœopathic Hospital March 17th and operated same day. The mastoid was very dense; very little cellular structure; the outer and inner plates being close together. There was a well walled off peri-sinus abscess, the sinus being covered with granulations. The tip of the mastoid was gone and an opening led directly beneath the sternomastoid muscle into a pus cavity. This was drained through a counter incision. This patient is still in the hospital and at present writing, March 28th, out of bed and running a normal course.

Case IV. William C., age 7 years, March 22nd. Patient was one of eight children. The mother was unable to give any good history of the condition, did not know when the child first complained of ear trouble, but thought it was recent. She stated that several days ago the patient placed some paper or cotton in his ear.

Status: Child held head in a rigid position, inclined toward the right side. The auricle was only slightly more prominent than the left. There was a swelling below the mastoid, posterior to the posterior border of the sterno-mastoid muscle. This swelling was hard and did not fluctuate. Case was admitted to the Hahnemann Hospital and operated on March 22nd. A wad of newspaper was removed from the external canal, the drum showed a very large defect and it was possible to palpate the promontorium through the defect. There was an offensive discharge in the tympanic cavity. The mastoid was opened; the antrum contained soft bone and granulations. There was no other cellular structure in the mastoid, the outer and inner plate being, also in this case, very close together. The inner surface of the mastoid appeared defective, the edges of the defect being smooth and not giving the appearance of necrosis. A fistula led posteriorly between the splenius and trapezius into a pus cavity. This was drained by counter incision.

In the former series of cases, reported by the author, the pus appeared anterior to or directly below the sterno-mastoid muscle. In this series the pus took the posterior route, appearing posterior to the muscle. Two of these cases were in young adults, the other two being in children. The majority of reported cases, as stated in the author's former paper, were in adults, there being very few cases recorded in children. (One of my confreres has told me of a child of four months, recently operated by him, in which there was a marked forward extension of this condition. In the author's former paper he reported a case occurring in a child of four years).

Case one subsequently developed a temporal lobe abscess. In cases one and three there was a peri-sinus abscess; this condition has been frequently found present in cases of Bezold's Mastoiditis and the author has reported two such cases in his previous paper. One of these patients showed a tendency to hold the head toward the diseased side; this condition was also found in one of the author's previously reported

cases. In none of these cases was there found any perforation of the outer plate. In case three the abscess occurred without perforation of the drum.

This series of cases further proves the contention of Bezold that these abscesses are due to anatomical structures, viz.: thickened outer plate, large tip cells, thin inner surface of the mastoid tip or defects in the inner surface of the mastoid tip. All of these cases showed a thick cortex, with very little cellular development except in the tip and in cases three and four the inner surface of the tip appeared defective.

TESTAMENTARY CAPACITY AND ITS OBSERVATION BY THE PHYSICIAN.

BY

WILLIAM F. BAKER, M. D.

(Read before the Pennsylvania Society of Physical Therapy, Tuesday, February 28, 1911.)

PURSUANT with the request of several members of this society and as a sequel to the article on "The Physician as a Business Man," I wish to call your attention to the importance of accurate notes and observations on the part of the physician where there is called into question the patient's testamentary capacity.

Too little attention is paid to this most important subject by physicians in general, and it is with a hope of stimulating your observations in this direction that we may not only array ourselves on the side of the question which appears to us to be right, but also aid our legal associates.

Then again, the physician is usually called in to testify in cases of contest, and very often upon his testimony depends one way or another the settlement, and because of this I would urge upon every practitioner careful observation along these lines.

We have all had outlined to us in medical courses the essentials and but a brief review will be in order.

In discussing the capacity of a patient to make a will, it must be understood that the patient is in the enjoyment of that capacity at the time of making such will. This statement, broad as it is, points clearly to the point of accurate and carefully recorded observations on the part of the doctor

if his testimony is to be taken as evidence. Does it not show clearly the necessity for accurate observations and the recording of such by the nurse in charge? If your patient be not qualified at the time, but should become so later, then a different course must be pursued; but if he is qualified at the time and your observations are so recorded, then your testimony goes a great way towards the help of any contest, and it is because of this one essential fact that great care should be observed in your examination of patients as to their mental capacity and intelligence. We see regularly on our morning rounds of visits, patients who are clear mentally and those who are befogged and irrational, because of the absorption of some toxine into the body, and yet how often does the nurse neglect to make note of this upon her "case history blank." Personally, I feel that it is as essential as the recording of the pulse and temperature.

I would not add one more detail of routine to the life of the doctor for with his new regulations regarding municipal affairs and those of the commonwealth his head is usually filled with much detail, but I think it of untold benefit to him in certain emergencies that he should instruct his nurse to make this observation a matter of record.

These matters are gone into to show clearly what is expected of the physician or the nurse of to-day, and it must be remembered that the standard required during the lucid periods of insane patients must be that of a person habitually sane.

Where there is an insane delusion consisting of a mistake in facts, such mistake of facts must not be based upon evidence or removable by evidence. We must also distinguish the delusional form of insanity as an incapacitating influence as we should also consider passing mental derangements as delirium, drunkenness and dementia, monomania and delusional insanity. Surely in this brief description of testamentary capacity we have outlined a visible duty of the physician not alone to himself and his patient, but also to the community at large, especially where he is called upon to give his testimony in support of either side or against one or the other.

Of course, there are many more factors to be considered in the management of such detail of work, but my object in calling your attention to this subject is to have you keep

in mind this ever present source of trouble, viz.: a man's earthly possessions and what he intends doing with them. I have seen many controversies aired in our courts and the results of which were anything but pleasing to all of the participants. Citing this brings to my mind a case of interest where, in a contest over the testamentary capacity of a patient both sides of the argument waxed warm, and it threatened to be a long drawn out affair and a costly one, which was promptly settled as soon as the opposing attorney had a chance to review the evidence. In this case I was attending the patient making the will, and during my administrations to him I had special note that the above suggestion as to the recording of mental symptoms was carefully made and recorded. Upon the arrival of some relatives and of their hearing that a will had been made there was a family gathering at which it was decided to make a complete change of medical advisers and nurses, and this was accordingly done. The patient had been suffering for several months with a chronic form of uraemia dependent upon an interstitial lesion of the kidneys.

Following our removal from the case there was subsequently drawn another will, and at the man's death offered in rebuttal to the first will drawn. Naturally both sides were drawn up for argument and the battle was on, and while it lasted there was something to it; and the result of the contest lay in a compromise, the winning parties receiving the credit in their own respective stations and the party having the better records recording his and their achievement in mutual satisfaction.

The point to be learned from this argument was that the nurses and doctors and hospital superintendent that could show that the testamentary capacity of the patient had been taken into consideration, and that it had been made part of their training, stood out better against fire than those who had depended upon their memory.

Especially does this suggestion follow in line with hospital work, where we, as attending physicians to the cases, are called before the proper authority to tell what we know concerning these patients, and have to rely upon the records of the institution that we foster and are associated with, and it has been my privilege to rely upon records of absolute integrity of observation and to see what a magnificent showing they have made when they have been called into use.

Perhaps you have had no use for such things, but it may be that your day is to come, and when it does, what a great amount of satisfaction it will be to you.

I take from "Chadman's Cyclopedia of Law" the following, section 945:

"The general rule or test of mental capacity is as follows: If the testator is able, without prompting, to summon before his mind, on the same occasion, and hold there for a reasonable time the nature of the business about which he is engaged, the persons who might naturally be the objects of his bounty and his relations to them, the kind and extent of the property to be disposed of and the scope and the effect of the disposition which he is about to make, he will be considered to have sufficient mental capacity to make a valid will."

Thus I give you one of the many definitions in the legal sense, and now it is not our intention to commercialize the doctor in any sense of the term, but that he may qualifiedly sit down with an attorney and throw sufficiently his knowledge of the subject on the case at hand, I give this definition in its entirety.

Let us analyze this definition from the standpoint of a medical man: One can see at a glance that the greatest liberality of thought is given, and the detail is not considered. This suggests to the medical man the thought that the patient's mind must be clear and such a statement should be so recorded on our charts. The usual notation found upon the nurses' chart is "seems very well this morning," and very often no mention is made of the mental condition. The intelligence of a nurse ought to be sufficient according to this definition to note either the words "mentally bright," or "mentally active," and those notations made at the time of observations.

Quoting still further, under section 946: "So mere weakness of memory, vascillation of purpose, eccentricities of the person, as vanity, selfishness, credulity, filthiness, belief in witchcraft or spiritualism, or mere miserliness are not enough to invalidate the will of a person, these peculiarities being common to all in a greater or less degree, and having of themselves no effect upon the testamentary capacity.

Now, if these peculiarities are the result of insanity, either passing or present, the duty is here directly upon the medical man, to distinguish. The duty which the physician is able to

perform, and the service also to the community in the lessening of the work of the organized bodies of the law further presses the obligation upon him and his assistants. Now, as to the method of this notation. There should be no great difficulty or scientific skill required as the observation can be noted with the temperature, and in many institutions this has been brought about in the new instructions to the nurses and attendants, and is recorded in the space on the clinical chart usually under the heading of "remarks."

In private practice many of the doctors are opposed to bedside notations, but they are to be looked upon as evidence of first importance and should receive our *personal attention*. The time has come when bedside notes are the ones that are going to be relied upon and should be made as an entry of original observation.

It is my earnest contention that all entries should be made so, with the possible exception of laboratory observations. When confronted with these we must, of course, have resort to our laboratories, and as in the case of urinary examinations, they should be entered within twenty-four hours.

Personally, I feel the making of entries after he leaves the bedside to be of less value than the ones made directly in the presence of the patient and the attendants.

ALBUMINURIA FROM OBSTIPATION.—Roubitschek has examined the question whether in high grades of obstipation albuminuria and casts appear in the urine, and what the cause is. Instead of closing the bowel by suture he produced obstipation in rabbits by means of opium and tannalbin. Albuminuria appeared in from four to six days and casts were found in from six to nine days. Constriction of the abdomen increased the amount of albuminuria. In the urinary sediment appeared red and white blood corpuscles, granular and epithelial, and finally hyaline casts. Microscopically there were found in the kidney hemorrhages and cloudy swelling of the renal epithelium. The author ascribes this form of albuminuria to venous stasis. The clinical value of such observations is evident.

SUPRARENIN IN INFECTIOUS VASO-MOTOR PARALYSIS.—Heidenhain again calls attention to the fact that careful observers have on many occasions seen favorable and surprisingly rapid beneficial results from intravenous injections of salt solutions containing adrenalin, in pneumonia, diphtheria and peritonitis, that is in diseases where the weak pulse is due to a paralysis of the vaso-motor center. The usual dose is eight drops to a thousand centimeters of salt solution. It must be remembered that adrenalin is a very unstable and easily destroyed substance. The smallest tract of an alkali renders it inactive.

EDITORIAL

SENATE BILL NO. 261.

MEDICAL HISTORY seems likely to repeat itself in this State. The Old School, after struggling a number of years to establish Boards of Medical Examiners in this State, and meeting with repeated failures with bills of their own construction; finally succeeded in passing the act approved May, 1893, known as the "Boyer Bill," but which bill, except the headlines, was practically the bill introduced by Mr. Penniwell, and was the measure framed and introduced by our own School.

So in this session of 1911, the Old School, after introducing a measure framed along the lines of a "Single Board" making only post-graduate tests, was forced to abandon their first bill, and to substitute one which incorporated the principle of educational tests previous to graduation, and the omission of all post-graduate tests for graduates of medical colleges within the State.

Insofar as the Old School have directly copied our bill, and they have made liberal excerpts, they have an excellent bill; but in their effort to introduce some features of their own, they have constructed a bill, more indefinite in its character, and one creating a lower standard than that set by our bill.

The general features of Senate Bill No. 261 are very similar to those of Senate Bill No. 44, inasmuch as it provides for tests of the students attending the medical colleges of this State previous to their graduation, and if they successfully pass these tests, a license to practice medicine is granted them upon their graduation.

The minimum term of study is fixed as a four years course; each year to embrace not less than thirty-two weeks, and not less than thirty-five hours of college work each week; a total of 4,080 hours of actual work for the entire course, against 4,500 hours required by our bill.

The Old School and the public will please note the fact that the Homœopathic School put the standard too high for

them to reach, and as usual our school is in the van in the effort to advance the standard of medical education.

"The Bureau of Medical Education and Licensure," as it is styled is to be a sub-department of the Department of Public Instruction, and is to be composed of five active members, with the Superintendent of Public Instruction, and the Commissioner of Health as ex-officio members. The proportional medical representation upon the bureau is so adjusted that no one school shall have a majority, and these five physicians are entrusted with the execution of the practical details of the various examinations.

It is required "For students in medical colleges within this Commonwealth, such examinations shall be held in the institutions of learning at which the students are pursuing their course of studies, at any time, within thirty days of the proposed graduation of said students."

Let us do a little calculating upon this problem: Counting out Sundays there are at the most but twenty-six working days in the "thirty days previous to the time of proposed graduation;" there are sixteen subjects upon which it is required that the members of the bureau shall conduct written examinations, at each of the seven medical colleges within the State.

To ensure a uniformity of examination in the seven medical colleges, personally supervised by those authorized to make such an examination is an obvious impossibility, for there are not sufficient active members of the bureau to personally supervise examinations held at the same time in seven different places, and hence it involves a different set of questions, and consequently a different standard for the various medical colleges; for it is self-evident that the same questions could not be repeated, in an examination immediately following, and well-merited criticism might well be placed upon the fact that students of one institution were required to answer an entirely different set of questions from those required of another institution; and those who have had practical experience in presenting written questions for medical examination, know the impossibility of framing for each semi-annual examination, seven sets of questions that would, beyond criticism, represent a uniform standard.

Again, admitting the use of seven different sets of questions and conducting seven series of examinations, the twenty-

six working days would be insufficient time to make a thorough test upon the sixteen subjects upon which written tests are required, not to speak of the practical laboratory, and bed-side tests that may be introduced, without exceeding the time limit of the act.

At the conclusion of the examinations held for students of the colleges within the State, the bureau must conduct another set of examinations for graduates of colleges outside the State. It has been the custom of all Boards of Examiners not to announce the findings in any individual case, until all the applicants at that examination have been acted upon, and with but five men to mark all the papers, it is probable that a candidate would be a very long time before he was aware whether he could practice medicine or not, and all that time would be lost to him.

To summarize, our principal objections to the measure rests in the fact that IT IS A PHYSICAL IMPOSSIBILITY TO EXECUTE THE ACT IN ANY MANNER THAT WILL PROVIDE UNIFORM TESTS UNDER THE SUPERVISION OF THOSE ENTRUSTED WITH THE DUTY OF MAKING THOSE TESTS.

D. P. MADDUX, M. D.

THE BACTERIOLOGY OF COMMON COLDS.

EVERY practitioner of medicine has observed that there are great differences in the cases of acute catarrhal rhinitis that come under his observation, both as to their severity and as to their tendency to spread into the ear, throat or bronchial tubes. A number of investigators, notably Allen and Walter, have made extensive experiments with the bacteria flora of the mucous membrane of the nose, and have gathered some interesting data on the subject.

It has been found that the *Bacillus septus*, and allied bacteria which may be grouped under the head of diphtheroids, are the most common causes of cold in the head, especially in the epidemic form. These organisms are usually found in the nose. They may give rise to attacks of inflammation of the middle ear, but seldom produce an involvement of the trachea or larynx. The *Micrococcus catarrhis* is also found

in quite a large number of cases, and was noted sometimes in epidemics of colds. This organism is very apt to invade the larynx and trachea as well as the middle ear. The Micrococcus of Frankel is also the causative factor in a small proportion of cases of acute rhinitis. The Bacillus of influenza was not found once in a series of 250 cases. This is rather contradictory to the view commonly held by physicians that this organism is quite a common etiologic factor in cases of this kind. The absence of the Bacillus of influenza may have been due to improper methods of cultivating this organism. Most bacteriologists, however, are agreed that this organism is rarely found in cases of acute rhinitis. It is probable that some of the very severe and persistent cases of acute inflammation of the mucous membranes of the nose, those commonly designated clinically as due to "grippe," are the result of infection by more than one organism.—G. H. W.

STREET DUST AS A FACTOR IN CAUSING DISEASE.

Now that the summer season is returning, the attention of physicians and of the laity, especially in the large cities, is forcibly called to street dust and its injurious effects.

The dust from city streets is a very different matter from the dust of a country road. The latter consists principally of minute particles of earth that have been dried and pulverized, and is comparatively free from germ life. The dust from the streets of our large cities contains a portion of earthly material together with the excrement of horses and a large number of pathogenic bacteria of various kinds.

Dust that is free from bacteria produces its bad effects chiefly by irritating the mucous membrane of the nose, throat and bronchial tubes, leading not infrequently to a chronic catarrhal condition of the respiratory tract, and where it is abundant, to deposits in the lungs accompanied by subsequent connective tissue changes. Annoying and unhealthy as this type of dust is, it is comparatively harmless as compared with the germ-laden dust of the cities.

There are a number of diseases that are capable of being disseminated through the medium of dust. Notable among these is tuberculosis. The bacteria found in the dry sputum

from tuberculous individuals are scattered through the air, and may remain active for a week or ten days. It is also probable that scarlet fever, whooping cough, and occasionally pneumonia, are disseminated in this way. On account of the effect of light and drying on the bacilli of diphtheria and typhoid fever, it is not likely that these diseases are transmitted through the medium of dust.

The pollution of food by the dust-laden atmosphere is a matter to which sufficient attention is not given. Fruits and other articles of food are displayed in open markets and along our city streets continually, and it is not an uncommon sight to see them covered with a heavy coating of dust. When we consider the nature of this dust, to which we have previously made reference, it is obvious that it is a decided menace to those who partake of food thus exposed.

The best manner of disposing of street dust is a matter which has received considerable attention from sanitarians. Those who have observed the amount of dust stirred up by the street sweeping machines commonly employed in most of our cities are readily impressed with the fact that the method is open to decided objections. Sweeping the streets at night is undoubtedly a help, but we believe that the use of vacuum street cleaners, such as are now used in Berlin, will afford a much more satisfactory and more sanitary method of disposing of street dust.—G. H. W.

BERBERIS AQUIFOLIUM.—In acneous cases of men and boys, or in girls without ovarian or uterine irritation, it is a remedy of decided merit. Experience has proven its effectiveness too often to say that the results were accidental ameliorations.—Hinsdale in *Century*.

CHININUM ARSENICOSUM.—A girl, aged 18 years, suffered for about a year with anæmia and underwent various kinds of treatment without giving relief. Blood count showed a diminution in red cells with a considerable increase in the leucocytes. The patient had a white, waxy look to the face, had gradually lost in weight, was thin, pale and nervous. Various remedies, such as Pulsatilla, Ferrum and Sulphur, were prescribed without causing relief. Finally the prescription was changed to Chininum Arsenicosum, and the case turned for the better. After taking this medicine for three weeks considerable improvement was manifest, and another two weeks of the same treatment resulted in a return to normal.—Hinsdale in *Century*.

[I have found one of the chief indications for Chin. Ars. to be anorexia. It seems to increase the appetite by stimulating the digestive fluids.—ED.]

GLEANINGS

ACUTE PHOSPHORUS POISONING AND ACIDOSIS.—H. L. Tidy emphasizes the connection between the secondary stage of acute phosphorus poisoning and acidosis. The toxic powers of phosphorus were formerly considered to be due to the withdrawal of oxygen from the tissues. The amount of oxygen necessary to oxidize a fatal dose is, however, very small, and this view is no longer held. The result of the process of oxidation is the important point. Phosphoric acid is very powerful and is nearly as strong as hydrochloric acid. The oxidation of phosphorus after absorption would result in the presence of this acid in the blood and tissues. Hutchison found that sodium dihydrogen phosphate was the most powerful practical drug for acidifying the urine, but the author has been unable to find any instance of poisoning with phosphoric acid or symptoms resulting from an overdose.

In the treatment of the secondary stage of phosphorus poisoning, the measures employed in treatment of acidosis should be adopted. The injection of normal saline solution and the administration of alkalis should be commenced as soon as the vomiting and purging of the primary stage subside.

The presence of excess of acids in the tissues in the later stages of phosphorus poisoning has, of course, been previously noticed. Thus Meyer found the alkalinity of the blood to be diminished, and ascribed this to the excess of lactic acid in the body resulting from insufficient oxidation. Munzer in 1891 and 1892 examined the urine in ten cases of acute phosphorus poisoning, and found a high percentage of ammonia nitrogen. In two cases he gave sodium bicarbonate and noted the reduction in this percentage, as must, of course, necessarily occur. The treatment was apparently tried for experimental purposes, in order to observe its effect on the excretion of ammonia. It was not persisted with, nor was it employed in a subsequent case. This was before much attention had been given to acidosis. Possibly other cases have been treated with alkalis, but the author has not been able to find any record of such.

A close connection between poisoning by phosphorus and arsenic is often assumed to exist. In acute arsenical poisoning there is no occurrence of a secondary stage, and post mortem no changes are found in the liver resembling acute yellow atrophy or phosphorus poisoning. There is no evidence that fatty degeneration occurs to any extent, except in the alimentary canal, in cases of uncomplicated poisoning with arsenic. Thus there is no reason to believe that acute arsenical poisoning has any relation to acidosis, and no evidence that chronic forms are connected with it.—*The London Medical Journal.*

SYPHILIS AND OCULAR TRAUMATISMS.—The author discusses the syphilitic manifestations evoked by a trauma, especially those due to occupation

accidents. He repeats Petit's conclusion, the general sense of which is that a wound in a syphilitic pursues an atypical course and may evoke a lesion at the site of the wound or elsewhere, either immediately or even months later. In non-urgent operations it is best to give mercury and iodides for some time previously, and if the operation fails, to give these drugs again and wait six months after the disappearance of the syphilitic lesions before again operating. Autonelli states that while it would be difficult to prove the primary inoculation by the traumatizing body, still a secondary syphilitic infection would be as much the basis for damages as would a secondary streptococcus infection. Showing the danger of an operation on a patient with unknown syphilis, a case is reported of repeated opening of an abscess of the eyebrow, which finally resulted in a phagedenia. Another case reported is that of an injury to the right eye followed by corneal ulcer, iritis and granuloma of the iris. The patient admitted syphilis contracted some years before, which had been neglected. Atrophy of the eye and necessity for enucleation was the result. Discussing the question of parenchymatous keratitis caused by ocular injury in a syphilitic patient, he reports three cases. Three conditions must be fulfilled before the diagnosis can be made: 1. The eye must have been healthy before the accident. 2. Direct or well-established indirect trauma of the eye. 3. Keratitis following shortly on the trauma. —Dr. Autonelli, Paris, *Archives d'Ophthalmologie*.

WILLIAM SPENCER, M. D.

BILATERAL PAPILLITIS IN A CASE OF CYSTICERCUS OF THE MEDULLA.—Patient, age 23, pain in head for twenty days, tinnitus, vomiting. The head was inclined forward on account of the occipital pain. The vision and the external appearance of the eyes were normal, but a bilateral papillitis was found ophthalmoscopically. Antileptic treatment was unavailing. On the forty-fourth day in the hospital he suddenly lost consciousness and died. In the angle formed by the lateral olivary prominence and the middle cerebral peduncle an almost round body was found, which turned out to be a cysticercus. The points of interest are: 1. Position of the head, double optic neuritis, vomiting, cardiac phenomena due to compression of the glossopharyngeal and pneumogastric nerves, and finally death by paralysis of the respiratory centres. 2. The histologic structure of the cysticercus. 3. The preolivary site of the cysticercus and the double papillitis. 4. The rarity of the case.—Dr. C. Pascheff, *Archives d'Ophthalmologie*.

WILLIAM SPENCER, M. D.

SURGICAL TREATMENT OF ABDUCENS PARALYSIS DUE TO CRANIAL TRAUMA.—The author relates his experience with ten cases of this class. Only one of these cases made complete recovery unaided, and in this case Terson thinks it probable that the cause was an effusion of blood instead of the usual fracture of the ridge of the petrous bone. Most of the cases remain unchanged even after a prolonged medical treatment, an operation being refused by the attending physician. The case described by Terson, however, proves that much may be accomplished by surgical intervention. A woman, aged 45, after being run over by an automobile, showed a

paralysis of the left abducens. Convergence was extreme. Five weeks later, as the paralysis seemed stationary, he did a free tenotomy of the internal rectus, and after resecting the external rectus, attached the stump close to the cornea. Three threads were used, the upper one being tied first, then the lower one, and lastly the middle one. Five days later the eyes were normally placed, and after a fortnight the patient resumed her usual occupation, being able to go about without the slightest trouble. To overcome the small loss of movement to the temporal side the patient turns her head for extreme movements. Terson does not think that the advancement alone would have been sufficient, owing to the extreme action of the antagonistic. He thinks we should be more daring in the surgical treatment of those ocular palsies which have hitherto been regarded as incurable.—Dr. A. Terson, *La Clinique Ophthalmology*.

WILLIAM SPENCER, M. D.

CONCEPTION AND MENSTRUATION.—Gottschalk says that it is generally believed at present that every menstruation indicates the abortion of an unimpregnated ovum, and that the pregnant ovum belongs to the first missed menstrual period. According to the old theory of conception, the ovum liberated at the preceding menstrual period may become impregnated. The author has heretofore contended for this latter view, and in support of it he now cites a number of cases supporting it.—*Arch. f. Gyn.*, Vol. 91, 479.

THEODORE J. GRAMM, M. D.

TETANIA GRAVIDARUM.—Frank says under tetany a disease condition is described consisting in tonic intermittent cramps of the upper extremity, with unaffected sensorium. If severe, these convulsions may be painful. The lower extremities may be affected, as also the face, diaphragm, or larynx with disturbed respiration, as also the muscles of the eye. There are present disturbances of nutrition in various organs, such as the skin, hair, nails, etc. The diagnosis is confirmed by certain signs, such as pressure in the sulcus bicipitalis exciting a typical convulsive attack; increased galvanic and mechanical irritability of motor and sensory nerves. Tetany is encountered in otherwise healthy individuals (idiopathic or occupation tetany); in those affected by stomach and intestinal affections; in acute infectious diseases; after poisoning, in pregnancy and the puerperium, after extirpation of goiter, and in association with other nervous diseases. The author recites several cases observed during pregnancy. The course of the usual form is recurrent in every succeeding pregnancy, the patient being free when not pregnant. Multiparae are most affected; when occurring in primiparae they are usually nervous and anaemic. The second half of pregnancy is the usual time of occurrence. The recurring attacks increase in severity the closer one conception follows the other. This disease is usually not fatal, and many patients do not even seek medical advice, though some deaths are recorded. The theoretical cause of this condition in pregnancy is of great interest. The author reviews the theories formerly dominant. Weiss and later Kocher regarded the disease as due to the absence of the thyroid secretion, since it followed operations removing this gland. Several observers have, however, studied

the parathyroid glands, and later Vassalle and Generali showed that after removal of the thyroid gland there occur trophic disturbances, while if the parathyroid glands are removed tetanic convulsions follow; therefore they ascribed to these epithelial bodies an antitoxic function, in the absence of which convulsions occur. This view has been confirmed by a number of observers. Among others Frommer has further developed this idea, so that he believes that the toxic substances developed in the placenta are neutralized by the parathyroid glands. A disturbed function of these glands may therefore lead to tetany in pregnancy.—*Monatsschr. f. G. u. G.*, Vol. 32, 416.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF DYSMENORRHOEA.—Drenkhahn (Detmold) presents a brief communication on this subject. He refers to a recent discussion in England where the consensus of opinion seemed to be that this painful affection is due to spasm of the uterine muscle associated with colicky pain. Of the treatment it was said that all these cases are curable, that sometimes the remedy is worse than the disease, particularly if the patient is led to become addicted to the use of morphia or alcoholics, or if the patient must be subjected not only to dilatation or lacerations of the os or even hysterectomy. The writer says he has been uniformly successful in these cases by injecting a millegram of atropia dissolved in a cm. of water into the cervical canal. Another author has explained the action of atropin upon the uterus as limiting its excitability. The author claims to have permanently cured these cases of dysmenorrhœa by the treatment suggested. He also says it is surprising how effectively acute and chronic inflammatory conditions of the uterus may be treated by sitz baths, douches, ichthyol tampons, etc., after the use of atropin.—*Zentralbl. f. Gyn.*, 1910, 1531.

THEODORE J. GRAMM, M. D.

PITUITRIN IN POST PARTUM HEMORRHAGE.—Some experiments formerly made with this substance showed that in rabbits the uterine muscle was made to contract strongly and at the same time there was an increase in the excitability of the uterus to faradization, an effect quite independent of the blood pressure. From this suggestion Foges and Hofstatter have tested the action of pituitrin in 63 cases of hemorrhage, 50 of which followed labor, and 13 post abortum. The effect observed was that the uterus was brought to a condition of contraction, and its excitability to slight massage was much increased. The latter effect seems to be characteristic of the medicament, and in this it appears to differ from ergot, which serves only to excite contractions. A combination of the two has been tried, but in not sufficient number of cases to warrant conclusions. The amount of pituitrin used was 1 to 2 cm. of the solution given by intramuscular injection. Given by the mouth no effect was observed.—*Zentralbl. f. Gyn.*, 1910, 1500.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

GRAPHITES AND SCARS.—Apropos of clipping in January Retrospect on the subject of the power which certain drugs have of causing the absorption of scar tissue, some time ago a man came to me with a partial stenosis of the cæcum following an operation for appendicitis. I told him I thought there was a cicatricial band and that I would give him Graphites to cause the scar tissue to soften or be absorbed. Like the parrot, I “talked too much,” for he told me afterward that he dare not take my medicine for it would be just as apt to soften the scar tissue that ought to be there as that which ought not, and I don’t know but he was right.—[Ed.]

CLINICAL EXPERIENCES WITH UNUSUAL REMEDIES.—By R. P. Rabe, M. D., Professor of Materia Medica, New York College. Read at meeting of Southern Homœopathic Medical Association in Jacksonville.

Abies nigra.—Sensation of hard-boiled egg in stomach.

Abrotanum.—Emaciation begins in feet, the opposite of *Natrum mur.*, which begins in neck. Endocarditis with pains about heart.

Acetic acid.—Anæmia, dropsy, gastric disturbance, great thirst.

Agaricus muscarius.—Twitching and inco-ordination of various groups of muscles.

Actea spicata.—Rheumatism of small joints of fingers.

Alumen.—Chronic pharyngeal catarrh with burning, constriction and dryness.

Ammonium carb.—Pulmonary cedema, worse 2 A. M., with relief after expectoration.

Amyl nitrite 30.—Climacteric flushings and palpitation.

Antimonium sulphuratum.—Chronic bronchitis, with relief after expectoration.

Antimonium iodide.—Slow resolution after pneumonia, with jaundice.

Aralia racemosa.—Bronchitis, loose cough.

Aranea (spider).—Wet weather aggravation.

Arum.—Loose cough, worse lying down.

Artemisia.—Hay fever from hay.

Arundo.—Hay fever, with tickling in roof of mouth and nostrils.

Badiaga.—Neuralgia, worse when thinking of it. Cough, with flying expectoration.

Bellis.—Soreness through abdomen from exposure to cold and wet.

Calc. arsen.—Organic disease of heart, palpitation from mental emotion.

Calc. sulph.—Suppuration, better in open air; opposite of *Hepar*, which is better when warm.

Carbolic acid.—Headache, band around head; very offensive nasal catarrh.

Carbon sulph.—Numbness.

Ceanothus.—Enlarged spleen, with pain in it.

Chenopodium.—Pain in spine.

Chimaphila.—Thick urine, ropy; sensation of ball in perineum.

Chin. ars.—Diarrhoea from eggs.

Chloral hydrate.—Erythema, like scarlet fever.

Coccus cacti.—Whooping cough, later stages, worse 5 A. M. and 11 P. M.; relief from cold water; open air relieves.

Cochlearia.—Gonorrhoea, burning within fossa.

Codeine 3x.—Dry, hacking, irritating cough; worse lying down.

Comocladia.—Pain in eyes.

Conium.—Impotency or too early emission. Women with ungratified sexual feelings. Dry spot in throat, causes cough.

Corallium.—Cold mucus in catarrh.

Condurango.—Cures deep fissures in mouth. Spasmodic stricture of oesophagus.

Crotalus.—Cancer of liver, with pain; greenish color; abdomen tender.

Crocus sativa.—Sensation of something alive in abdomen.

Cypripedium.—Sleeplessness of children.

Dioscorea.—Colic of catarrhal appendicitis; patient doubles back; cramps in distant parts.

Dolichos.—Itching of skin without eruption.

Echinacea.—Intense debility in infected wounds.

Elaps.—Offensive otorrhoea; greenish post-nasal catarrh.

Equisetum.—Nocturnal enuresis.

Eupatorium perfoliatum.—Intermittent fever; worse from cold drinks. Vesical irritation in women.

Fagopyrum.—Eruption from primrose plant; is relieved by cold water. Occipital headache.

Ferrum iod.—Bearing down feeling; sitting makes worse.

Formic acid.—Rheumatic pains wander about; sweat with no relief.

Gnaphalium.—Sciatica, relieved by sitting; worse in any other position.

Grindelia.—Asthma when dropping asleep.

Hekla.—Enlarged glands; bony tumors.

Helonias.—Itching of vulva.

Hura.—Cracking of knees on bending.

Hydrocotyle 6x.—Ichthyosis; sebaceous tumors.

Hypericum.—Punctured wounds, with pains along nerve trunks. Pessary pains.

Jacaranda.—Chancres very red.

Lac caninum.—Sore throat; begins one side and goes to other. Fullness of breasts before menses. Pearly white membrane in diphtheria, alternating sides. To dry up milk supply.

Lachnantes.—Stiff neck from drafts.

Lactic acid.—Diabetes with nausea; relieved by eating.

Lathyrus 30.—Paralysis of extensor muscles from getting wet.

- Lactrodectus*.—Angina pectoris, intense pains.
Lithium carb.—Palpitation from emotion.
Malandrinum.—Prophylaxis of small-pox.
Melilotus.—Headache with flushed face; nose-bleed relieves.
Medorrhinum.—Suppressed gonorrhœa; even gonorrhœal peritonitis
Millefolium.—Bright red hæmoptysis, without anxiety.
Myrica.—Functional disturbance of liver and heart; soreness; worse in evening, better in open air.
Osmium.—Renal colic, with vomiting.
Onosmodium.—Neurasthenia from sexual excess or eye-strain.
Paeonia.—Anus oozes and itches.
Penthorum.—Coryza; constant wetness in nose.
Ptelea.—Functional disturbance of liver; swelling, aching and weight, on lying on left side; irritable.
Pyrogen.—Septic cases; pale, sweaty, rapid pulse, low temperature or vice versa, with anxiety.
Ranunculus sceleratus.—Mapped tongue; myalgia right side.
Rhaphanus.—Occlusion of bowel from cancer; no gas up or down.
Ratanhia.—Fissures of anus.
Robinia.—Catarrhal gastritis; vomiting excessively acid.
Sanicula.—Profuse sweats about head and neck; pasty stools; sensitive to drafts.
Sticta.—Cough dry, worse morning and evening. Dry clinkers in nose; chronic catarrh.
Tarantula Cubensis 30.—Septic conditions; carbuncle bluish in color.
Tilia.—Pelvic peritonitis; warm sweat does not relieve.
Trillium.—Hemorrhage from fibroids.
Trombidium.—Diarrhœa with brown grain-like stools; worse after eating or drinking.
Tuberculinum 200.—Deep acting. Worse in damp weather; wants cold air blowing on him. Incipient tuberculosis. In phthisis cannot eat.
Variolinum.—Prophylaxis of small-pox. Cures small-pox.
Veratrum viride.—High fever, high pulse, red streak on tongue; phlebitis.
Viburnum.—Delayed menses; feel like they would come; cramps when they do.
Viscum.—Failing heart; worse lying left side.
Wyethia.—Nasal catarrh, itching far back and dry; constant desire to swallow.
Xanthoxylum.—Dysmenorrhœa, with cramps down front of thighs.
—Chironian.

SANGUINARIA NITRATE.—Smarting and burning in throat and chest, particularly under the sternum produced by coughing. Expectorated matter is sweetish in taste, thick and yellowish in appearance. Sudden stopping of catarrh of air passages and appearance of diarrhœa calls for Sanguinaria. If influenza symptoms of "winter cholera" are present consider Sanguinaria, Podophyllum and Mercurius corrosivus. Symptoms of catarrh in genito-urinary tract the result of influenza call for Mercurius corrosivus, Cantharis or Belladonna.—Hinsdale in *Century*.

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BUREAU OF HOMOEOPATHIC INSTITUTES AND CLINICAL
MEDICINE

G. MORRIS GOLDEN, M. D., Chairman

PNEUMOTHORAX.

BY

G. MORRIS GOLDEN, M. D., PHILADELPHIA.

The condition of pneumothorax was brought to the writer's attention by observing several cases that had been primarily diagnosed pleurisy with effusion.

It is the object of the paper to report several typical cases, after which the clinical features will be discussed, and those physical signs that have been found useful, in arriving at a diagnosis.

Case I. Mr. T. A. Single. Age, 28. Occupation, cook. Family history—Father dead; cause unknown. Mother living and well. Two brothers living and well. One sister dead, due to heart disease.

Personal history.—Had the usual diseases of childhood, not followed by any sequelae. Last June, (five months ago) he fell from a ladder striking his back and left side. It is interesting to note at this point the relation of the injury of the chest wall, to the location of the tubercular lesion, which was upon the left side.

History present illness.—Says he was apparently well until two months ago. While spending his vacation at some lake resort, caught a heavy cold. This continued, growing in severity, patient developing fever, night sweats, loss of weight, and marked exhaustion. One month ago began with blood spitting, which has continued at intervals, until the present time.

Several days previous to his admittance to the hospital, he was seized with sharp cutting pains in left side of chest, at midaxillary line, marked dyspnoea, rapid, feeble pulse, cough with bloody expectoration, and a collapsic state. Upon admittance to hospital, his condition was as above noted. Temperature 101 F., pulse 130, resp. 40.

Physical examination.—Left side of chest somewhat bulging. Tactile fremitus from about third rib downward, and vocal fremitus were diminished, and at dependent portion was absent. Percussion revealed a tympanitic note, rather low pitch and woody in character, over the whole left side of chest. This is an important physical sign and leads to many an error in diagnosis. Auscultation revealed marked diminution in the respiratory murmur, and at base was absent. At the level of the third rib, distant amphoric breathing could be heard. Coin sound positive. No metallic tinkling. Succussion splash present, and heard distinctly. Heart dullness to left of sternum obliterated, and apex beat located in epigastrium, while two inches to right of sternum dullness could be made out, showing a marked shifting of the heart. As the pneumothorax resolved itself, the physical findings of an effusion into the left pleural sac evidenced itself, and a rapidly infiltrating tubercular process involving the whole upper left lobe could be distinctly determined. Sputum examination showed numerous tubercle bacilli. Patient left hospital January 2, 1909, somewhat improved, eventually dying January 28, 1909. The disease running its course in about four months.

Case II.—Mr. L. R. Married. Age 32. Occupation, salesman.

Family history.—Parents dead, causes unknown. No brothers, nor sisters. No history of tuberculosis.

Personal history.—Whooping cough, measles and chicken pox, when a child. Otherwise said was never ill until his present condition, enjoying, as he said, perfect health.

History present illness.—Was apparently well until one week ago, when developed sharp, cutting pain in left side of chest in mammary region. This pain continued, and several days later noticed he was short of breath; not so much a rapid breathing, as a labored one. He could only walk a very short distance without sitting down, on account of his dyspnoea, which, in the matter of several days, amounted to an orthopnoea. Upon admittance to the hospital, complained of sharp pains in chest, dyspnoea, could not lie down for sense of suffocation, was cold, clammy, and slightly cyanotic. Temp. 100 F., pulse, 110, resp. 34.

Physical examination.—Inspection reveals some prominence of left side of chest, and restricted motion. Apex beat not visible, but felt in epigastric region. Heart displaced to right. Palpation revealed a diminution of both tactile and vocal fremitus, but not entirely absent. On percussing the left side of chest, a low pitched, markedly vesicular note, somewhat tympanitic was made out, increasing in character from above downwards. Between the fourth and fifth ribs, the note became markedly tympanitic, and somewhat amphoric in quality, this extending in a band-like fashion around chest posteriorly. Below this region percussion revealed a flat note, this line of dullness changing very markedly with change of position of patient. Auscultation revealed a marked diminution of breath sounds, from above downward over the whole left side. At the level of the fourth to fifth ribs, is heard distinctly, and quite loudly, amphoric breathing, which extends posteriorly, in a band-like manner, corresponding to the percussion note of same character. Metallic tinkling, and coin sound absent. The succussion splash is plainly heard, in fact, it was perfectly audible to the patient. This patient left the hospital in about three weeks time, with apparent perfect recovery. Although the record does not state the patient was tubercular, yet, from repeated observations, such a conclusion was reached.

From an analysis of the clinical symptoms, and physical signs of the foregoing cases, a diagnosis of pneumothorax was made.

The occurrence of a pneumothorax is probably more frequent than is recognized. Wilson states it is extremely rare, while Strumpell is of the opinion that it arises in an overwhelming majority of cases. The greatest number of cases

occur in early adult life, from twenty to thirty years of age. More frequently in males, and a greater tendency to involve the left side in the proportion of two to one.

The most common cause of pneumothorax is diseases of the lung, and the most important of these diseases, by a big majority, is tuberculosis. It is the general opinion that as many as ninety per cent. of all cases are due to tuberculosis. More often in the acute cases, that is, in the early stages, fifty-five per cent. occurring during the first year, when softening or caseation are going on. It is much less frequent in arrested tuberculosis, and the later stages of the disease, when fibrosis and adhesions have taken place. Hence, it is rare to find the rupture at the apex of the lung, this being the most common seat of pleuritic adhesions.

The condition may occur in apparently healthy individuals, and constitutes what is termed a spontaneous pneumothorax. This type, and in fact the other varieties, frequently follow some exertion, as lifting, reaching, coughing, vomiting, and sneezing. A certain proportion of cases occurs when the person is at rest, or during sleep. It is logical to suppose that such incidents cannot be associated with healthy lung tissue, and are probably due to the tearing away of a pleuritic adhesion, as the result of a slight subpleural tuberculosis.

A pneumothorax may form the initial symptom of a tuberculosis, and it is estimated that about five per cent. of all tubercular cases develop this condition.

The clinical symptoms are not diagnostic, but simply suggestive, they being subject to great variability. This variability depends upon certain factors, such as the ease with which the air passes in and out of the pleural sac during the respiratory movements, the amount of air retained, the pressure exerted, and to the displacement of the mediastinum.

It has been shown by Krehl, that the seriousness of a pneumothorax, depends upon the functional capacity of the healthy lung, and the severe collapse, and symptoms following a perforation into the pleural cavity, have been overcome experimentally by preventing the displacement of the mediastinum. In general a right sided pneumothorax is more serious than a left sided, because of greater capacity of the right lung.

The onset may be either gradual or rapid. In those cases where the lung capacity is adequate, and it is free to retract; not prevented from doing so by adhesions, the onset is rapid

and severe, usually consisting of sudden, sharp pain in the affected side, marked dyspnoea, going on to an orthopnoea, with sense of suffocation. Rapid heart action, pulse being small and feeble. Patient grows cold, clammy, cyanotic, and all evidences of collapse.

If the lung has been extensively diseased, and is bound down by adhesions, the onset of symptoms is less rapid and urgent. In such cases the clinical symptoms may be practically absent, and some weeks later after careful examination, we will find the presence of a pneumothorax. This type constitutes what has been termed the masked variety.

In the spontaneous type the onset is usually quite rapid, with pain and urgent dyspnoea. Occasionally it may be insidious in onset, as in Case II.

It is a fairly good working rule to state that pulmonary tuberculosis of moderate extent, and spontaneous pneumothorax furnish the greater number of cases with sudden onset.

In that variety known as valvular pneumothorax, the symptoms are sudden in onset, and become alarming at once. The severity of the symptoms is marked, and death rapidly ensues unless prompt relief is obtained. This type usually occurs in advanced tubercular cases, it being due to a fistulous opening, and as the result of pleuritic adhesions has a valve-like action; thus air readily enters the pleural cavity, and less readily escapes; hence gradually increasing the intra-pleural tension. The severity of the symptoms is thereby markedly increased, and the suffering of the patient extreme.

There are many varieties of pneumothorax, but I feel they may be simplified into three types, that of the Open, Closed, and Valvular pneumothorax. A clinical diagnosis of the various forms is not always possible, even from a physical diagnosis aspect. In fact, a certain type diagnosed by certain clinical symptoms, and physical findings has been reversed at the post mortem table. The valvular is but a modified form of the open type, and as Cabot states it, "An open pneumothorax is one in which the amount of effused air increases, and a closed pneumothorax is one in which the physical signs remain stationary."

The only method of making a positive diagnosis is by the aid of physical signs, and of these auscultation and percussion are the most important and helpful. Many of the supposed pathognomonic signs are not always present, nor are they

constant features, the signs being modified by the physical conditions existing.

Inspection reveals little that is important, beyond distention of affected side, and limited motion; these not always being present. Displacement of the apex beat to the right in a left side lesion, and if upon the right side, downward displacement of the liver. It is rare in any other disease to find such extreme displacement of these organs as may occur in a pneumothorax, and their presence should be suggestive.

Palpation reveals signs that are not uniform. Usually tactile and vocal fremitus are diminished, and at times absent. If lung is bound down by adhesion, and unable to retract, it may be unaltered, and at times exaggerated.

The percussion note will be found to be quite variable, it depending upon the amount of air retained and its tension. Usually it is hyper-resonant and frequently tympanitic in character, a most important physical sign, and causing many an error in diagnosis.

If the tension is extreme, the percussion note may be muffled, dull, or even flat. The normal boundaries of the chest are increased; that is, splenic, and liver dullness may completely disappear, and the normal area of cardiac dullness be obliterated, or change position.

If fluid be present, a change in line of dullness, on change of position of patient takes place very rapidly and completely, in no other condition is it more marked than in pneumothorax.

Auscultation reveals our most positive evidence. The respiratory murmur will always show some change. In the majority of cases it is diminished, or may be absent. This latter condition frequently gives rise to errors in diagnosis, but should always suggest pneumothorax, when occurring over a hyperresonant or tympanitic area.

Amphoric breathing is characteristic, and may be said to be pathognomonic of the condition; it attends breathing, talking, and coughing. It has been described as a hum or echo. This character of breathing is not always of the same intensity; at times it may be loud and readily heard, but frequently it is distant and faint, taking careful auscultation to elicit. Its quality does not change.

If metallic tinkling is elicited, it is a most trustworthy sign, but in both cases reported it was absent.

A sign of distinct value in pneumothorax, is what is termed

the coin sound; when present the sound produced by the percussing coin against the chest, elicits to the ausculting ear a tone of bell-like quality. This is a common phenomenon in pneumothorax, and occurred distinctly in Case I.

One of the most positive auscultory signs is the succussion splash. Its presence can only take place when fluid and air are contained in a cavity, and at no other time. Hence its detection is proof positive of a pneumothorax; the only point to decide is whether the sound has its origin in the pleural sac.

It has been my endeavor to recite several typical cases, and to point out for your consideration those clinical features, and physical signs, upon which one may rely when making a diagnosis of pneumothorax.

In closing I quote from Gee the following: "No disease of the chest affords signs more characteristic than those of pneumothorax, or can be discovered with greater ease and certainty, or is more often overlooked. The chief cause of this frequent failure in diagnosis, is the fact that the observer is misled by the resonant percussion note into an assumption that the affected side is natural, and so into neglect of auscultation whereby alone pneumothorax can be discovered."

POLIO-MYELITIS ACUTA.

BY

WESTON D. BAYLEY, M. D., PHILADELPHIA.

THERE is probably no disease that affords the practitioner of medicine a greater opportunity for the display of that psychological quality known as pure asininity than does the inception of acute polio-myelitis. I speak thus feelingly from personal experience in the earlier and less cautious years of practice, as well as from the observation of some of the diagnostic tribulations of my colleagues. In most cases the beginnings of this formidable affection are all too innocent, and the doctor in his little interview with the anxious family as he prepares to leave the house, speaks portentously of something trivial, "Only a cold," "an acute indigestion," "grippe," or what not—words which lie heavily upon his diagnostic

digestion the next day or the day after when the nurse or the mother calls his attention to some helplessly paralyzed limbs! How humiliating the situation becomes! One might add that the doctor who does not learn caution after one or two of these delicate experiences is diagnostically anaesthetic to a high degree.

The beginnings of this malady are usually febrile in character, and do not materially differ from the early symptoms of other acute infections. Elevation of temperature and an accompanying malaise may be the only phenomena, perhaps with a chill and subsequent sweating. Or there may be active delirium, convulsions and retraction of the head. The fever, active for two or three days, breaks by morning remissions and is usually gone in a week. Abdominal pain, vomiting and diarrhoea may be early on hand to further bewilder the helpless diagnostician. Backache is often complained of by those old enough, and in infants, pain is indicated by their fitful crying and disinclination to be moved.

In a day or two, someone in attendance discovers that some of the limbs are paralyzed; perhaps all of them. In rarer cases, pontine and bulbar symptoms will be superadded, such as nuclear paralysis of the facial, oculomotor, hypoglossal, glossopharyngeal and pneumogastric nerves.

In sharp contrast with the febrile cases (which may thus be delirious and semi-comatose), is a smaller proportion in which the disease develops with no febrile phenomena whatever. Thus a child in ordinary health may awaken in the morning with a painless paralysis or manifest it suddenly while at play.

The amount of paralysis present in the acute stage of all cases does not represent the degree of ultimate damage. We can predict return of power in some paralyzed parts; but practically always some degree of paralysis will permanently remain. The exception to this being in certain rare, apparently abortive cases, with weakness of the limbs, observed in epidemics.

The paralyzed muscles rapidly waste, show electrical alterations, and the reflexes are lost. In from three to five weeks a gradual improvement will begin which may continue through the period of a year. This leaves the established and permanent residuum of paralysis in which, while the limb may slowly grow, there is no improvement in its power. The bones in

the permanently paralyzed limbs may fail to develop at all, thus adding in later life to the apparent deformity.

The legs are more frequently affected than the arms, and in the lower extremities the extensors are more prone to involvement than the flexors. The ultimate deformities requiring surgical and mechanical treatment, it is not our present purpose to discuss.

Death is less frequent in the sporadic cases than in epidemics; in the latter varying estimates place the mortality at six to ten per cent. The fatal cases are usually those manifesting medullary or cerebral symptoms.

The current conclusions concerning the pathology of this disease are (1) that it is an acute specific infection sporadic or epidemic in type, caused by a micro-organism or its toxin, as yet unidentified; (2) that the lesion is an interstitial inflammation throughout the cerebro-spinal axis, the invasion being through the pial vessels into the spinal cord and brain; (3) the preponderance of inflammation is in the distribution of the anterior spinal artery. There is a proliferating cellular infiltration in the pia and spreading out from the vessel walls into the anterior horns of gray matter, where the inflammatory infiltration proceeds to the impairment or destruction of the ganglia cells. The clinical features of a case will be determined by the varying severity of the inflammatory destruction in different levels of the cord.

Harbitz and Scheel*, of the Pathological Institute of the University of Christiania in Norway, have made extensive studies of the pathology of this disease, and they are of the opinion that Landry's paralysis, acute bulbar paralysis and some cases of transverse myelitis are identical with acute poliomyelitis.

Henry Berg**, studying the cases in the New York epidemic of 1906-7, (of which he estimates there must have been two thousand in that general vicinity), gives symptomatic differences which lead him to the conclusion that the sporadic and epidemic varieties are "radically different diseases."

Chronologically considered, the diagnosis of acute poliomyelitis proceeds from the practically impossible to the relatively easy. In the pre-paralytic period anyone can make an

*Translated in the *Journal Am. Med. Assn.*, Oct. 26, 1907.

***Medical Record*, January 4, 1908.

error as I pointed out in the opening remarks of this essay. We can be generally suspicious at all times of acute febrile conditions—and usually we will be wrong. In the course of epidemics, our suspicions will be intensified, with an increased chance of their being right. When the paralysis has developed, many of the text book writers consider the diagnosis to be easy, and some give tabulated differentials in parallel columns; but these, especially in the attempted contrast with multiple neuritis, are not always so easy when applied at the bedside. For example, take the sensory symptoms—said to be present in acute multiple neuritis, absent in acute polio-myelitis. As a matter of fact, we meet with cases of polio-myelitis where the pain is severe and persistent. In one of my cases at the present time it has been severe and with some nerve tenderness for weeks. Again, it is pointed out that in polio-myelitis the paralysis is more in the “roots of the limbs while the distal ends are not involved (in polyneuritis the condition is reversed)*; or, as another author** puts it, the paralysis in polio-myelitis “embraces entire limbs,” while in multiple neuritis “it begins in ends of limbs,” by which he means the distal ends. But we see cases, especially in young children, where this differential is ambiguous. Of course, polio-myelitis is much more common in children than in adults. The asymmetry of the paralysis in polio-myelitis as contrasted with its symmetry in multiple neuritis is a sign of greater value. The loss of Faradic reaction is earlier and more pronounced in polio-myelitis than it is in multiple neuritis, and may be a valuable aid. In a spinal paralysis the distribution is segmental rather than neural—that is, involving groups of muscles intimately related in function, rather than those supplied in common by a certain nerve. The point I wish to emphasize in all this is that it is sometimes exceedingly difficult to differentiate early between a polio-myelitis and a multiple neuritis.

In acute rheumatism, and in traumatisms, some limbs may be apparently immobile, but this is an inhibition from pain rather than an actual paralysis and with a little care can be readily differentiated.

Rachitic pseudo-paralysis may appear suddenly, but it is to be differentiated by the absence of atrophy and R.D. and

*Gordon, *Diseases of the Nervous System*, p. 279.

**Church and Peterson, p. 324.

by the presence of the well-known general symptoms of rickets. Of course, there is nothing to prevent a rachitic child from getting acute polio-myelitis, a double condition wherein the diagnosis would require greater care. Erb's paralysis, which is an obstetrical traumatism resulting in paralysis of the deltoid, biceps, coracobrachialis and supinator longus, needs to be mentioned as a possible source of error in diagnosis. The differential features will be obvious.

The treatment of acute polio-myelitis in the beginning is that of any acute febrile disease, and consists in complete rest, careful nursing and proper selection of medicines. I cannot predict in these days of antitoxins what the future may bring forth as a specific antidote for this affection, but I do know that at the present time there is nothing better than our homœopathically selected medicines. These may include *Dulcamara*, *Gelsemium*, *Belladonna*, *Aconitum*, *Cocculus*, *Rhus*, *Plumbum*, *Phosphorus*, *Secale* or any other remedy that may be indicated by characteristic symptoms. *Curare*, in potency, may be worthy of a trial even though we are well aware that its action is upon the terminal motor plates in the muscle rather than on the multipolar cells in the anterior horns. As soon as paralysis develops, and if there are no clear indications for anything else, it is my practice to use *plumbum* empirically in the 30th or 200th potency. Just how much results we get from our drugs in a given case, is problematical, because of the varying outcome of the cases anyhow. I never use palliatives and sedatives. We should not employ electricity for treatment in the acute stage. Later it is of value. Do not allow the mother or nurse to carry the child or rock it; keep it quiet. What I have said about electricity applies also to massage; both are harmful if employed early.

DISCUSSION OF DR. BAYLEY'S PAPER.

DR. RAUE: I certainly have been pleased to hear the points that Dr. Bayley has brought out in this paper. It is very necessary that something be brought to the attention of the profession in regard to their conception of poliomyelitis, as the text-book descriptions of this disease are absolutely inadequate for a practical understanding of the disease. Unless one has had a large experience with it he will fail to recognize

cases, or will look upon cases of poliomyelitis as being something else. The old descriptions of poliomyelitis lead us to believe that it was purely an inflammatory affection involving the anterior horn of the cord, and that its symptoms were nothing more than paralysis of rapid onset followed by wasting of the limbs. This is the type of disease which may be commonly encountered in sporadic cases; but in the epidemic form it is about the rarest type we see. As you know, there has been recently a widespread epidemic of poliomyelitis, and the majority of cases that I have seen would not come under the old conception of this disease. A case I saw recently started like a case of cerebro-spinal meningitis. The child was taken with high fever and delirium. This goes to show that poliomyelitis varies greatly in the intensity of the pathological condition. There may be nothing more than a small focus of inflammation, or we may have a general process involving the anterior horn of the cord and even the brain. In the last few years great advances have been made in the study of the etiology of poliomyelitis. Several years ago it was found that the disease could be conveyed to monkeys by means of an extract made from the spinal cord of a child dying of poliomyelitis. The experimenters were also able to propagate it from one monkey to another. Since then it has been found that the infective agent is probably spread from the mucous membrane of the respiratory tract. It has not as yet been determined, but inasmuch as the extract that has been passed through a porcelain filter is still capable of conveying the disease, it is probable that the infective organism is not a bacterium, but a much more minute organism. It was formerly thought that poliomyelitis was not a fatal disease. We know now that in epidemics the mortality is very high, and the question of reporting and isolating these cases is an important one. I am glad to say that our Boards of Health have taken this matter up and require that cases of this disease shall be reported.

DR. LOOS: I should like to ask for a report of the evidence of this disease developing from one child associating with another.

DR. FLEAGLE: Acute poliomyelitis is a disease that presents many peculiarities. Out of the first six cases that I treated two died. As to the type of paralysis, in both cases that died there was an absolute inability of the child to use the head at all, and both died from paralysis of respiration. As to the medical treatment, I would say that stramonium is a remedy that is well indicated in this disease.

DR. BAYLEY: In reply to the question of Dr. Loos, I would say that there are some instances where there have been two or more cases in one family. This is exceptional. The trouble appears to be extremely and deviously infectious. There was a little village up in Vermont wherein isolated cases developed here and there through a small community. From the peculiar characteristics of the disease as shown in the epidemic form we are justified in saying that the disease is infectious, but not infectious in the same sense as some of the ordinary diseases of children.

DR. BOWIE: How about the age limit in this disease?

DR. BAYLEY: The preponderance of cases come on in the first, second, third and fourth years. Then we have them on up into adult life. I have under my care at present a young adult of twenty-six years of age who developed his attack in July. No age is absolutely immune; but it is not common beyond the age of thirty.

HYPERCHLORHYDRIA.

BY

T. B. BRADLEY, M. D., PHILADELPHIA.

THIS condition has been selected as the subject of my paper because it is the most frequently met with of all stomach disorders, in private practice. One half or more of all digestive disorders are accompanied with, or due to hyperchlorhydria. Jaworski finds nearly two-thirds of all his stomach cases to be accompanied by, or due to this condition. Einhorn gives as his results in an examination of 564 private patients suffering from digestive disorders, more than one-half had hyperchlorhydria. Riegel, while not giving any statistics, claims that the trouble is very common, and that it is not more often discovered owing to the lack of examination. Bouveret, Mathieu and Redmond agree with Riegel. Ewald, speaking solely of hypersecretion does not find it common. Fleischer, Hemmeter and some others think that locality plays an important part in the number of cases found. Boas gives no statistics, classifying the subject under the gastric-neuroses. Boardman Reed speaks of its frequency. Kemp states that about fifty per cent. of his private practice was made up of

cases of hyperchlorhydria. Conheim gives no statistics but emphatically states that hyperchlorhydria must be separated from hypersecretion, and further recognizes four forms of the trouble. The first and second being expressions of organic anatomical disease, while the third and fourth are expressions of functional disease.

My own records for the past two years show about one-half of all my cases suffering from hyperchlorhydria, either functional or due to some other disease. The time of my paper is too limited to go into the various discussions of whether hydrochloric acid is ever found in the stomach or not. Much has been written on this subject and a number of eminent chemists have apparently proven that free hydrochloric acid is not found in the stomach. But let the acid be what it may, it is sufficient for our purpose, until we know more positively, to call it hydrochloric acid.

We have two forms of hyperchlorhydria, the functional and that due to organic disease—*i. e.*, ulcer of the stomach. etc.

Hemmeter has attempted to prove that hyperchlorhydria may be produced by a continuous albuminous diet. Einhorn gives as direct causes highly spiced dishes, ice water, and strong alcoholic drinks. Other writers claim we may have a simple hyperchlorhydria due reflexly to cholelithiasis, or movable kidney. In an examination of the gastric contents of twelve cases of movable kidney I found eight suffering from sub-acidity. Chlorosis is a frequent cause, Oswald in Riegels clinic, made a gastric examination of twenty-one cases of chlorosis and found twenty suffering from hyperchlorhydria. Violent emotions, sorrow, worry, and mental over-exertion are admitted by all writers to be causes of this trouble. In this paper I only intend to speak of the functional variety.

What is hyperchlorhydria? In most all the works on diseases of the stomach we find the title of the chapter hyperchlorhydria, hypersecretion, hyperacidity; the terms appear synonymous. This, however, is not the case as they all require a different method of treatment. Hyperchlorhydria is that condition varying from discomfort to severe pain coming on after meals, due to an excess of free HCl. Hypersecretion is the condition in which we find from 40 to 250 c.c. of gastric juice in the stomach, when normally it should be empty, here we may have free HCl. increased or normal;

it is, however, frequently increased. Hyperacidity is an increase in the organic acids, the free HCl. may be below normal.

The normal amount of acid found in the stomach, (after taking an Ewald test breakfast, removed in one hour) is free HCl. 20 to 40, total acidity 40 to 60. There are, however, exceptions to be found. I have several times met cases in which the free acid was as high as 65 degrees without causing discomfort, and again I have seen cases in which the free HCl. was well within the normal limits, and yet they were unquestionably suffering from hyperchlorhydria. Nearly all writers report a similar experience. In hyperchlorhydria it is very common to find only a slight difference between the free acid and the total acidity.

Symptoms of hyperchlorhydria come on gradually, at first patients complain from one to three hours after some one particular meal, of fullness, eructation of gas, intestinal flatulence, pressure, heat or tingling in the stomach, usually accompanied by thirst. This goes on for some time, in some cases a year or two, and then the symptoms become more severe and usually follow every meal. We may have then in addition severe distress in the gastric region, burning sensation, acid belching, pain so severe as to cause violent attacks of cardialgia, and patient may appear almost in a state of collapse. Violent headaches also may be complained of at this time. Vomiting is rare, but when it does take place it affords almost instant relief. These symptoms last from one half to three hours after a meal, depending on the severity of the attack. There are never any symptoms found when the stomach is empty, unless the hyperchlorhydria is accompanied by hypersecretion.

Patients suffering from this trouble will frequently state that they can eat indigestible food without distress, and yet have distress when they eat a very light meal. Some patients only complain after certain foods; most complain after taking coffee. All the above symptoms come on more frequently and are markedly worse when the patient is suffering from some mental worry. These patients look fairly well nourished and unless a faulty diet has been maintained, do not lose weight. Appetite good, bowels are usually constipated, but may alternate with diarrhoea. The examination of the epigastric region during an attack shows great sensitiveness

extending over a large area; at times so sensitive that the patient cannot bear the lightest touch. Between the attacks there is not much if any sensitiveness.

The diagnosis of this trouble can only be made accurately by an examination of the test meal. An Ewald test breakfast removed one hour after eating shows free HCl. as high as 60 to 100, starch has not been converted at all, or else we find large quantities of erythrodextrin. Achroodextrine absent. No matter what indicator is used in titrating for the free acid it is important first to test for the free acid by the Gunzberg test. In these cases an examination with the tube should also be made when the stomach should normally be empty; if it is a case of pure hyperchlorhydria we will not find more than 5 or 10 c.c. of secretion. If, on the other hand, we find from 40 to 100 c.c. of secretion it is conclusive proof that our case is complicated with hypersecretion. How important it is to use the test meal in our diagnosis is shown by the following extract from Moynihan's work on duodenal ulcer. After giving the symptoms of duodenal ulcer he goes on to say: "A description of these symptoms is to be met with in most of the text books of medicine, under the caption 'hyperchlorhydria' or 'acid gastritis,' and the belief that these words are a sufficient diagnosis is very general. After giving a diagnosis of duodenal ulcer, I am not infrequently met with the objection that the patient's symptoms are indicative of nothing more than 'persistent hyperchlorhydria.' This is the medical term for the surgical condition duodenal ulcer. The symptoms of 'acid dyspepsia,' if they are intractable and recurrent, are due to the demonstrable lesion, duodenal ulcer. Of that there can no longer be any doubt. The most interesting feature, however, in such cases is that an excess of free hydrochloric acid is not present as a rule; indeed, it is most exceptional to find any greatly increased acidity. This is well shown in the reference given elsewhere to a series of examinations of the gastric juice made upon consecutive cases submitted to operation, many of which had borne the clinical label 'hyperacidity' for months or years. It is true that in such cases an 'acid rising' occurs; chyme brought up into the mouth burns the oesophagus and the pharynx, makes the mouth hot, and the teeth to feel 'chalky.' But chyme is naturally acid; it is the regurgitation which is abnormal."

Further along he states: "The terms 'acid dyspepsia,'

'hyperacidity,' 'hyperchlorhydria,' are then not only dangerous as concealing the fact that the condition which causes them is not functional, as implied, but organic; but they are misnomers also, for the presence of an excess of acid is most infrequent."

We must also differentiate between biliary colic accompanied by jaundice or palpable swelling of the gall bladder, gastralgia, and gastric ulcer.

The prognosis in this condition is generally very good, but in long protracted cases, we can look for relapses following some indiscretion.

In regard to the treatment of hyperchlorhydria, we must first remove the cause. Tobacco, alcohol, all kinds of acids, condiments of all kinds excepting salt must be prohibited. Nothing must be taken too hot or too cold. When this condition can be traced to mental overwork these patients must take a vacation, preferably in the country where outdoor amusements can be found, such as horseback riding, golf, tennis, walking, fishing and shooting. Those who give up their lives to a round of social pleasures must be compelled to lead a quiet life temporarily. Sponge baths and light gymnastic exercises help these cases.

In regard to the diet so much diversity of opinion exists among the authorities that each man must choose his own selection. Some authorities advocate the giving of a carbohydrate diet, claiming that it does not produce as great a secretion of free HCl. Other authorities advocate a proteid diet, claiming that it neutralizes the excess of free HCl.

Personally, I have tried both methods and at present advise the proteid diet as it gives greater and quicker relief to the patient. I give food rich in albumin, eggs, game, mutton, beef, oysters, milk, etc. All cereals in small quantities. Green vegetables allowable but always taken with some albuminous food. Bread and butter, if plenty of butter is used patients can have a larger quantity of bread. I have relieved the pain of hyperchlorhydria a number of times by giving a ham sandwich and a cup of cocoa. In some of these cases codeia had to be used previously. It is advisable to instruct the patients to take plenty of water during their meals.

The administration of one to four drams of olive oil before meals sometimes helps. In regard to the number of meals for these patients again the authorities differ, some advocat-

ing only three so as to give the stomach a period of rest and not risk the development of atony or dilatation. Personally, I give three meals at regular times and two lunches in between consisting of a sandwich, or crackers thickly covered with butter, or a plate of raw oysters. If desired one of these lunches may be taken at bed time.

In regard to drugs the alkalies come first. Magnesia, bicarbonate of soda or milk of magnesia (Phillips) give the best results. The alkalies should be given after meals before the appearance of distress. If the patient suffers from atony it is advisable to use very little soda as it generates gas. The dose of the magnesia preparations must be regulated by the condition of the bowels. I have been experimenting with two of our homœopathic remedies lately for this condition, but at this time am not prepared to give results. Carlsbad and Vichy water are both valuable. Atropin and belladonna, so much used by the old school, I have found comparatively valueless. I have administered atropine until dryness of the throat was complained of, and yet on examination of the following test meals, found results the same as before the taking of the drug.

Goodno, following the advice of Roberts, claims good results from chewing gum and swallowing the saliva after meals. I frequently advise it and find it beneficial. For the past five years I have been using intragastric electricity according to the method of Einhorn. This is not in favor with most writers. Kemp states that he thinks it impractical.

W. S. Fenwick of London, in his latest book entitled, "Dyspepsia: Its Varieties and Treatment," published by Saunders Company, July, 1910, on page 49 states, "Some writers assert that internal galvanization of the stomach reduces the secretion of hydrochloric acid and is capable of curing the complaint. That the acid does occasionally diminish under this method of treatment cannot be doubted, but I have never met with a case in which a genuine cure has been effected by means of electricity." The value of this assertion, however, is lost as further along Dr. Fenwick shows he is even not familiar with the administration of intragastric electricity. On page 233 he states, "Einhorn and others prefer direct electrization of the organ by means of a metallic wire inserted into an ordinary stomach tube, but the procedure is unpleasant to the patient and tedious of application."

I here show you an Einhorn intragastric electrode which

speaks for itself, and in regard to the unpleasantness to the patient, most of them tell me they like it. It is not tedious to the doctor. In giving intragastric electricity I use galvanism giving from 10 to 12 milliamperes for ten minutes, according to Einhorn's method, twice daily for ten to twelve treatments. Einhorn advises the faradic current unless pain is present, but personally, I think I get better results from the galvanic. I have presented no case reports with this paper, having treated a number of members of this society for this trouble, I was in hopes that some might be present to give their own personal report.

DISCUSSION OF DR. BRADLEY'S PAPER.

DR. RAUE: Many doctors do not make a gastric analysis because they consider it a complicated process. In order to simplify this matter I have devised a little instrument by which the physician can perform a gastric analysis in a few minutes, and in that way get the benefit of some very important data in diagnosing his stomach cases.

DR. WELLS: There are one or two points in Dr. Bradley's paper that I would like to refer to. The first is the difficulty of distinguishing cases of functional disease of the stomach from cases of organic disease. Many cases of supposed hyperchlorhydria are in reality cases of ulcer of the stomach or of the duodenum. The differential diagnosis between these diseases is not always easily made. The opinion seems to prevail that hemorrhage is always present in cases of ulcer, but clinical experience shows that this is not the case, as ulcer may exist for years with no hemorrhage occurring. A point which I think is of value in differentiating this condition is the fact that in ulcer the pain is very apt to come on at a definite time after eating food. This regularity is an important feature. The time of the onset of the pain is not the same in every case, for if we are dealing with an ulcer near the cardiac orifice the pain will come on earlier than if the ulcer is near the pyloric orifice. But the point I wish to emphasize is that in any particular individual suffering from gastric ulcer the pain comes on at about the same time after eating each day. Secondly, I would like to refer to the dietetic treatment of hyperchlorhydria. Medical authorities disagree very decidedly on this question. Personally, I have found no diet that seems to have any specific influence on the condition, except perhaps gastric

irritants such as spices and condiments, which should be avoided.

DR. BRADLEY: I would like to say a few words regarding the differentiation between gastric ulcer and hyperchlorhydria. There is one well-known method of determining the differences between these diseases which rarely fails, and that is in the case of gastric ulcer the smaller and lighter the meal the less the pain following the administration of food. If you give a large meal you are going to have intense pain compared to where you give a liquid diet. In hyperchlorhydria it is just the opposite; when you give a large meal containing a large amount of proteids you will have relief at least temporarily. I would like to call further attention to the fact of the bleeding, and that is in every case of suspected gastric or duodenal ulcer it becomes the physician's duty to make repeated examination of the stools to determine definitely whether blood is present or not.

CLINICAL EXPERIENCE IN ALCOHOLISM.

BY

A. P. BOWIE, M. D., UNIONTOWN, PA.

DR. B. W. RICHARDSON, in his "Diseases of Modern Life," says: "To speak of diseases originating from the use of a fluid which, next to water forms a part of the daily beverage of immense populations of civilized people, seems a satire on civilization." It is, nevertheless, the duty of every physician to speak plainly on this subject, because it is his painful task, day by day, to treat the most terrible and fatal diseases for the origin of which he can assign no other cause than the use of alcohol.

It adds to the pain of the physician while he makes these observations to feel that when he calls to his aid the study of physiological law, he can find no place for alcohol as a necessity of life. He contemplates its action on living functions to discover that it supplies no force to living matter and no new matter that is of natural character for the construction of organized tissue.

In whatever direction he turns his attention to determine the value of alcohol to man beyond its sphere of value as a

drug which he may at times prescribe, he sees nothing but a void; in whatever way he turns his attention to determine the persistent effects of alcohol he sees nothing but disease and death; mental diseases, mental death, physical disease, physical death.

This extract from the semi-professional work of the lamented author sums up the truth about alcohol in a most admirable way and no physician but whose experience will endorse it.

Now, let us look at the disease-making properties of the drug as portrayed by Allen in his encyclopedia of pure materia medica, and note the array of symptoms portrayed therein, many of which we have often verified by our own experience and observation. Note especially the mental symptoms for in describing and prescribing for alcoholism they are often overlooked, and only the physical symptoms are considered. Gallavandin, in his work on "Alcoholism," considers the mental symptoms of the inebriate the most important in prescribing and he gives a list of fourteen remedies he uses most frequently.

Since reading this work I have followed the treatment as laid down by the author and have had good results. The patient must, in all cases, stop the use of his stimulant entirely and take plenty of liquid nourishment—in the form of soups, meat and fruit juices and milk, preferably buttermilk. In the acute form of alcoholism a cold wet-pack is a valuable adjunct and it promotes the elimination of the poison from the system.

But there is one class of these patients where the will power is lost, and where the only way to deal with them successfully is to place them in an institution for a lengthy period of time, with abstinence and diet and the use of such remedies as are indicated in each case.

We read of three-day cures of alcoholism and other methods where gold is used, but they are only the method of the advertiser. We all know that it takes a long time to cure some of these cases. I think our legislative committee should recommend that our State provide such a home for these unfortunates, instead of sending them to jails and asylums. Nothing is more needed than an institution where, for a moderate charge, these patients can be secluded and helped.

DISCUSSION OF DR. BOWIE'S PAPER.

DR. A. E. HEIMBACH: I have had some experience along these lines, and have restored a number of men to their families who were chronic drunkards. The treatment I use is as follows: For the first two or three days I do not allow them to drink any alcoholic liquors, but give them a tonic hypodermically. About the third day I tell them that I think they are about ready for a test, and at the usual time of the hypodermic I inject an eighth or a tenth of a grain of apomorphine. Then I tell them that I will disgust them with the sight, smell and taste of liquor before I get through, and that one drink will bring on severe vomiting. Then I let them smell the whiskey, and then urge them to take several drinks of it. It is not long before the remedy begins to act, and the result is far from pleasant for the patient. The next day I put them through the same process, and keep this up for a week or two. One patient that I treated eleven years ago has never drank a drop, and he says he would no more think of taking whiskey than he would of going down to the river and drowning himself. I think that forty or fifty per cent. of those that I have treated have been permanently cured.

SECRETARY GRAMM: I have seen a number of cases, socially and professionally, of people who have had an intense craving for alcohol, and I think there are few of us who take into consideration the fact that it is a run-down physical condition that creates the desire for artificial stimulation. Frequently these people do not sleep and do not get the proper amount of rest. In these cases it is important that the patient should get as much rest and sleep as possible. It is unquestionably true that you cannot cure chronic alcoholism unless the patient is willing to be cured; but the thought that I would impress upon the Society is, not to always look to medicines for the cure of this condition, but to see whether you cannot accomplish a whole lot by giving him a physiological bracer in the form of sleep.

DR. BOWIE: Dr. Gramm has brought out two important points—the importance of sleep and the lack of will-power. This lack of will-power is so marked that there are cases that cannot be cured unless the patient is put in an institution.

THE SURGICAL TREATMENT OF TIC DOULOUREUX: WITH SPECIAL
REFERENCE TO THE METHOD DEPENDING UPON INJECTION
OF ALCOHOL INTO THE MAIN BRANCHES
OF THE TRIGEMINAL NERVE.

BY

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TIC DOULOUREUX has been, until recently, one of the most unsatisfactory conditions with which physicians have had to contend. The truth of this statement becomes apparent when we remember that the average case, having exhausted different forms of medicinal treatment, suffered so extremely that most, if not all, of the teeth were sacrificed in vain attempts to obtain relief, and that various operations were performed with but transient beneficial results; some cases having been operated many times. Indeed, not a few of these cases became drug habitués, and some even committed suicide because the excruciating pains rendered the continuance of life intolerable. Because of the inefficiency of medical treatment, of the inevitable recurrences which followed the older surgical measures, and because of the almost unbearable pain which these patients suffer, any modern operative, or other means of treatment which is capable of curing or relieving the condition to an extent that is satisfactory to the patient, should be welcomed and popularized.

At present there are two kinds of operations which offer almost positive assurance of complete and permanent cure; no matter how severe or hopeless the case may appear to be. These methods are: Partial or complete excision of the Gasserian ganglion; and section or avulsion of the sensory root of the fifth nerve—the so-called physiologic extirpation of the Gasserian ganglion. Operations peripheral to the ganglion offer but temporary relief, and, almost in all cases, the neuralgia may be expected soon to return with all its former severity.

In 1906 Sherren (1) expressed the opinion that, until the possibility of regeneration of the posterior roots after section had been definitely settled, removal of the Gasserian ganglion, an operation which is known to be curative, should be the method of choice. More recently, Frazier (2) has asserted that division or avulsion of the posterior root positively cures

tic douloureux, and that it has been demonstrated, both by animal experimentation and by clinical observation, that regeneration of the posterior root is not possible. That regeneration cannot occur is dependent upon the fact that non-medullated nerve fibres do not regenerate.

Avulsion from the pons of the sensory root alone is recommended by Cushing (3).

The advantage of operating upon the sensory root lies in the possibility of sparing the motor functions of the fifth nerve.

Besides presenting many technical difficulties operations upon the Gasserian ganglion and its sensory root have a mortality of about 5 per cent. In speaking of the mortality of 3.7 per cent. in the collective statistics of Horsley, Cushing, Hutchinson, Lexer, Lloyd, Doellinger, and Frazier, Deaver (4) says that his mortality was higher than 3.7 per cent., though he has operated a number of cases of tic douloureux.

That gasserectomy not always is followed by a permanent cure is well known. Kiliani (5), for instance, has observed recurrences after four gasserectomies performed by the best surgeons.

The disadvantages of these operations are: High mortality as compared with that of other major operations; danger of intracranial complications; danger of panophthalmia and other trophic disturbances appearing as sequellæ; substitution of anaesthesia for pain; heavy expense to the patient and loss of much time from his work; and the clinical fact that, in addition to all these other disadvantages, gasserectomy, at least, does not offer with certainty the prospect of a permanent cure.

In view of all these disadvantages it is fortunate that a new method of treatment has been discovered that will cure most of these patients without necessitating greater loss of time than that required by an ordinary visit to a physician, and which not only is painless, but practically is devoid of the possibility of dangerous sequelæ or of death. Injection of alcohol into the foramen of exit from the skull of the involved branch, or branches, of the trigeminal nerve is the method which possesses these advantages.

Before describing this procedure allow me to present some statistics concerning its therapeutic results. Of 60 cases of tic douloureux treated by Ostwalt (6) with injection of alco-

hol, 33 per cent. had recurrences within five months; the relapses being less severe and more amenable to subsequent treatment than was the original condition. According to Hussy (7) Schlosser, in 1907, reported before the Medical Congress at Wiesbaden 209 cases in which relief from pain continued for an average of one year from the time of injection. During almost three years Hecht (8) injected 48 cases from one to five times each. Of these, 32 were greatly improved, 8 were improved, 5 were unimproved, and 3 were aggravated. One year was the average length of time before recurrence took place. Since 1906 Kiliani (5) has injected 190 cases with but 5 failures. The average number of treatments required was three. Of these 42 per cent. have not yet (June, 1909) had any recurrence. In the remainder, recurrences appeared in from three months to two years. Included among the successfully injected cases of his series were four patients upon whom gasserectomies had been performed, and two who had been subjected to Abbe operations. One of his patients had been afflicted with the disease for 48 years, and had submitted, with but temporary relief, to four peripheral operations, a gasserectomy, and then a fifth peripheral operation. After making four injections in less than a month the patient remained entirely free from pain (9). Patrick (10) reported 16 cases in 1907. In 14 cases whose histories contained definite statements of the number of injections made, four was the average number required to effect a cure. His method was repeatedly to inject at intervals of a few days, and, in doubtful cases, to continue to do so even after pain had completely disappeared. Treatment was ineffectual in but one of his cases, and this failure he ascribed to his inability to place the alcohol in, or near, the affected nerve—the superior maxillary branch.

In a later paper containing condensed reports of 75 consecutive cases Patrick (11) remarks: "I think that there can be no doubt whatsoever that when the injection reaches the nerve the pain is stopped at once. In this sense I have not had a single failure. The greatest drawback to the method is the uncertainty of reaching the nerve on any given trial. But if the patient is willing to persevere he is practically certain of relief. Of course, in many cases one succeeds the first time."

Having made 24 injections in 7 cases Ball (12) succeeded

in curing six and in greatly improving one. This neurologist enthusiastically closes his paper with the statement: "My experience with it (the injection treatment) causes me to feel that in the whole realm of therapeutics we do not have a more successful procedure."

The alcohol injection treatment of tic douloureux was originated, in 1900, by Schlösser, and later perfected by Lévy and Baudouin (13). It was developed from Billroth's method of injecting with osmic acid the peripheral branches. The instruments employed are: An ordinary hypodermic needle, a hypodermic syringe, preferably one made entirely of metal or of glass, and two sharply pointed needles fitted with blunt pointed stylets. One of these needles should be 1 5-8 inches long for injecting the inferior maxillary and the ophthalmic branches, and the other must be two inches in length to reach the superior maxillary branch. By discarding stylets Brissaud and Sicard are enabled to use needles of finer calibre. Besides rendering the operation more dangerous these needles are too delicate to permit the operator, while inserting them, to feel his way with their points. But two solutions are required; one being a half per cent., or a one per cent., aqueous solution of cocaine, and the other a one-fifth per cent. solution of cocaine in eighty per cent. alcohol. The first of these is used to anaesthetize the skin, and the second to inject the nerve. Cocaine is added to the second solution only in order to overcome any pain due to the irritating effects of the alcohol.

In performing the operation a drop of the first solution is injected into the skin with the ordinary hypodermic needle. It is not at all necessary to anaesthetize the deeper structures. After waiting several minutes to allow the cocaine time to act the special needle, without stylet and unattached to the syringe, is thrust entirely through the skin. Then the stylet is inserted, to prevent injuring vessels, and the needle gradually and cautiously inserted to the desired depth. After withdrawing the stylet the syringe, filled with the alcoholic solution, is attached to the needle and thirty minims is injected. After removing the needle a drop of collodion serves to occlude the puncture. It is needless to say that the most scrupulous aseptic and antiseptic precautions must be observed.

The mode of action of the alcohol in curing these cases is not known. It seems probable, however, that it acts by set-

ting up a sclerotic process in the nerve, thus preventing transmission from the periphery of painful impressions. In some resistant cases it may be necessary to increase to 90 per cent. the alcoholic strength of the second solution.

The number of injections required to cure a case varies greatly according to individual peculiarities in the patient, and according to the skill displayed by the operator in placing the alcohol in or near the nerve. From the statistics already mentioned it seems that from one to six injections may be required, and that the average case may be cured by about three injections. Probably it is best to inject once a week until all symptoms disappear. By giving the treatment at intervals of one week time is allowed for each reaction to subside before repetition of the injection. All who have written upon the subject have noticed that when more than one injection has been necessary almost always each has been followed by decided improvement, and that fewer treatments are required to cure relapses, even when these are late in appearing.

Very fortunately it is not always necessary to inject the solution into the nerve; close proximity being sufficient, in most cases, to effect a cure. When the injection is successful marked improvement generally is noticed at once, and the patient experiences immediate, and moderately persistent, numbness in the distribution of the injected branch. Absolute relief from pain not always is noticed at the termination of a successful injection, but improvement increases progressively. For this reason a week may elapse before one knows the amount of success that has been attained. The duration of complete absence of pain varies greatly. Many patients injected by others have not yet had any recurrence. We may expect the majority to have incomplete relapses in a length of time varying from a few months to several years. An early relapse may signify that the injection was not entirely a technical success in that the alcohol was not placed close enough to the nerve.

The inferior branch is the one most frequently affected with tic douloureux, and, fortunately, it is the easiest one to inject. About one inch anterior to the external auditory meatus there is an upward curve to the inferior surface of the zygoma. To inject the inferior branch the needle should be inserted at the middle and highest portion of this curve. This point corresponds closely to one about one half the distance between the coronoid and condyloid processes of the inferior maxilla.

By keeping the needle perpendicular to the longitudinal axis of the skull, and by directing the point very slightly upward, the foramen ovale should be reached at an average depth of 1.5-8 inches. This distance may be increased or decreased about one-eighth an inch according to individual variations in the conformation of the skull. During the insertion, the point of the needle, after penetrating about one inch, should be kept about one-eighth of an inch from the base of the skull. By doing so at least one deep landmark is obtained. For a few days after injection of this branch a little soreness and stiffness is apt to be noticed about the articulation of the inferior maxilla. The possibility of danger lies in the proximity of the internal maxillary and transverse facial arteries, and in fact that the middle meningeal artery enters the skull through the foramen spinosum, about one-eighth inch to one-quarter inch posterior to the foramen ovale. None of these vessels, however, is known to have been injured during an injection.

The middle branch is reached by inserting the needle just beneath the inferior surface of the zygoma at a point one-fifth inch posterior to a perpendicular line dropped from the posterior border of the orbital process of the malar bone. The needle is to be directed perpendicularly to the longitudinal axis of the skull, but with the point inclined slightly upward to a degree that at a depth of one and seven-eighth inches to two inches it will be on a level with the inferior extremity of the nasal bones. I have not yet made this injection but from practice on many different skulls I find that individual variations in the contour of the skull render most uncertain the successful attainment, by the point of the needle, of the foramen rotundum. The dangers consist in injecting the solution into the sphenoidal fissure, into the sphenopalatine foramen, or through the sphenomaxillary fissure into the orbit.

Ball (12), who on three occasions accidentally injected into the orbit, states that lack of resistance to the injection, and pain are the immediate signs of the accident, and that the later effects, which last for several days, are diplopia, and oedema and ecchymosis of the lids.

To my knowledge, there have been reported only four serious accidents resulting from injection of the superior and inferior maxillary nerves. In one case necrosis of part of the posterior portion of the upper right maxillary bone occurred in the practice of Lévy and Baudouin (14).

In his series of 75 cases of tic douloureux treated by injection of alcohol Patrick (11) had but three cases in which disagreeable complications resulted. One patient, aet. 65, whose inferior branch had been injected, developed keratitis with superficial ulceration. The other two cases had received injections of the middle branch. In one of these, aet. 76, some necrosis of the hard and soft palate occurred, and the other, aet. 62, keratitis and ulceration appeared as complications.

To inject the ophthalmic branch the needle is inserted into the orbit, at a level with the fronto-malar suture, and the point passed along the external orbital wall to a depth of one and four-eighths inches to one and five-eighths inches, when the sphenoidal fissure should be reached. In this operation it is obvious that the other ocular nerves are very apt to be affected by the alcohol.

Patrick (10) has performed this operation on but one patient (report of 1907) and in this case marked ecchymosis appeared, though therapeutically the first injection was unsuccessful. More recently he stated that he had abandoned, as being too dangerous, deep injection of the ophthalmic branch. Instead of this he injects at the supraorbital notch (11).

Before attempting any of these injections it is advisable to practice on as many skulls as possible in order personally to determine the direction in which the needle should be inserted for each branch, and to gain some knowledge of the many variations in the configuration of different skulls.

Case. 1. For three years Mrs. J., aet. 53, had been subject to severe pain in the left side of the inferior maxilla. One year after the onset she had all of the left lower teeth extracted without experiencing any relief. The pains were paroxysmal and occurred about every thirty minutes; each attack lasting from one to several minutes. Any motion of the jaw, such as produced by talking or eating, was sufficient to provoke an attack. During the examination her face became greatly distorted and she appeared to suffer extremely from the effects of a paroxysm excited by talking. Neurologic examination failed to reveal anything of importance.

From December 5, 1908, until May 1, 1909, she improved somewhat under the administration of atropine sulphate; though the attacks continued to incapacitate her for work.

May 1, 1909, after a drop of one per cent. cocaine solution

had been injected into the skin, thirty minims. of eighty per cent. alcohol containing one-fifth per cent. cocaine was injected into the foramen ovale. No difficulty was experienced either while inserting the needle or in locating the foramen. During the last one-eighth inch of the insertion there was noticeable lessening of resistance and the patient started slightly from pain in the distribution of the inferior branch. While being injected the patient remained perfectly quiet and was not at all nervous. Afterwards she said that the operation had been perfectly painless except when the point of the needle entered the foramen ovale. Immediately after the injection there was noticed numbness, both of the skin and of the mucous membrane, of the lower left side of the face, but not any disturbance of sensation could be demonstrated objectively. Though she talked and executed chewing movements she was unable to cause any pain to appear such as these movements formerly had provoked.

Slight stiffness and a little pain were noticed in the region of the left temporo-maxillary articulation during the succeeding four days. However, there had not been any recurrence of the neuralgic pains. Numbness persisted, but examination of the tactile, pain, and temperature senses failed to reveal any perceptible difference between the injected side and the corresponding contralateral areas.

Subsequently she steadily improved, though occasionally slight transitory pain resulted from masticating or talking. This pain was referred to the second and third left upper molar teeth; the only ones which had not been extracted from the left side of her mouth. October 29, 1909, six months after the injection had been made, she reported having been perfectly free from pain with the rare exception of a dull ache that appeared only when she talked much and which not only did not annoy her but which terminated when she ceased talking. An area of slight numbness, about the size of a quarter, persisted at the site of injection.

The result obtained in this patient undoubtedly may be considered a complete success.

Case 2. A man, aet. 64, was well until four years ago when he began to have paroxysms of pain in the whole distribution of the inferior branch of the left trigeminal nerve. The pain was so severe that he had sacrificed in vain all the teeth in the left side of his mouth. The attacks were almost

constant. Eating, talking and opening the mouth were sufficient to cause the pain to appear, or unbearably to intensify it if already present. At night the paroxysms were severe enough to cause him to lose much sleep. During the examination he had several attacks of what appeared to be severe pain; his face becoming greatly distorted.

July 23, 1909, the first injection was made. Though the point of the needle did not appear to be in the foramen ovale slight numbness was experienced immediately following the injection. July 31, 1909, the patient reported that the pains were just as severe but not so frequent. He could eat and talk, however, without causing an attack to appear. Numbness was noticeable only on the left side of the chin. Formerly a slight touch on the left side of the face was sufficient to cause an attack, but after this first injection pressure could be made with impunity.

As further improvement did not occur a second injection was made August 4, 1909. Because of the distinct lessening of resistance during the last one-eighth inch of insertion of the needle together with the appearance, at this time, of moderate pain referred to the distribution of the inferior branch the foramen ovale was thought successfully to have been reached by the point of the needle. That this was true further was indicated by the immobility of the point of the needle. Except for moderate pain when the needle was thrust home the operation was painless. After this injection decided numbness was noticed in the whole distribution of the inferior branch. While drinking a glass of water, later in the afternoon, he had a severe paroxysm of pain which lasted about thirty seconds. Subsequently he experienced on several occasions slight twinges of pain but these were so mild that they caused no annoyance.

September 18, 1909, moderately severe pain commenced in the left inferior maxilla. This pain was distinctly localized about a point where the second bicuspid should have been. Three days later a third injection was made. The results obtained this time were more satisfactory and on October 2, 1909, the patient asserted that he had not had any attacks and that numbness still persisted in the left side of the chin.

In this patient the beneficial effects of treatment, though eminently satisfactory, were not as perfect as those obtained in the first case. As he was perfectly satisfied with the almost

complete freedom from pain which followed the last injection he was told to wait a few months and then, if necessary, another injection could be made. Neither of these patients experienced a disagreeable amount of pain during the injections. In fact, both averred that it was almost painless.

Case 3. During two years Mrs. P. had suffered from severe pain three-quarters inch posterior and inferior to the left maxillary articulation and extending two inches down the ramus. The paroxysms occurred about every five minutes and lasted a minute or so. While talking or eating, however, the pain was constant and she was able to eat only soft foods. The three lower left molars had been extracted in vain attempts to cure the condition.

The first injection, made December 14, 1909, was devoid of any beneficial effects. Two weeks later a second injection was made and immediately afterwards the patient stated that she experienced numbness in the distribution of the nerve—the inferior branch. Subsequently the pains persisted but no longer were they organic in type as they shifted from place to place and apparently ceased to bother the patient when her attention was distracted. Moreover, the objective evidences of pain—the spasmodic facial distortion so familiar in *tic douloureux*—no longer was apparent, even when she complained bitterly of pain. It seemed, therefore, that these persistent fugitive pains were due only to the continuance, as manifestations of hysteria—to which undoubtedly she was subject—of pains which originally had been organic. Accordingly, further treatment with the alcohol injections was abandoned and she was variously treated with but indifferent results.

Case 4. In this patient, a physician, aet. 55 years, typical *tic douloureux* of the inferior branch commenced about three years ago. A little less than two years later the pains became unbearable so that a peripheral neurectomy was performed by Dr. W. B. Van Lennep. Following the operation the patient was perfectly free from pain for about eleven months and then the attacks returned with all their former severity. Having been treated for three months by Dr. Bartlett with aconitine in appreciable doses and as the disorder continued to increase in severity the patient was referred to me for the injection treatment.

Upon attempting to insert the needle the patient complained

that while the needle itself caused little pain the pressure necessitated by the dense tissues was too great to be borne. Consequently it was necessary to resort to incomplete etherization. Considerable difficulty was experienced in inserting the needle but finally the alcohol was injected satisfactorily. The following day the patient was decidedly improved and four days later—September 13, 1910—he reported, with much pleasure, that he had not had any pain for three days.

The outcome of the treatment in this case is eminently satisfactory and while it is too soon to claim that the disease is cured yet this result confidently is expected.

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MODERN METHODS OF TREATMENT EMPLOYED IN THE PSYCHOPATHIC DEPARTMENT OF THE WESTBOROUGH STATE HOSPITAL, WESTBOROUGH, MASS.

BY

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IN the process of evolution of the State care and hospital treatment of the insane, feeble-minded, epileptic and inebriates many changes have taken place within the last half century and especially the past two decades. The gradual process of evolution in methods of caring for the insane in the United States, may be roughly divided into three periods, viz.:

- I. The Chain and Dungeon Era.
- II. Era of Asylums for the Insane.

III. Era just begun, of Psychopathic Hospitals for the Acutely Insane; Colonies for the Chronic and Mixed Classes of Insane and Feeble-minded.

These periods, while distinct in their general outlines, are naturally not demarcated by any sudden break of continuity in the progress from one period to the other, as in all other types of natural evolution—the transition has been slow, gradual and unbroken. It is difficult, therefore, to fix the time limits of these eras by centuries; and yet, we may approximate an historical sequence by assigning the Chain and Dungeon Era to the seventeenth and eighteenth centuries. In the general history of the insane, we have the era of Demoniacal Exorcism covering the middle ages, which, we are thankful to say, is not applicable to the United States. The era of special asylums and hospitals is assigned to the nineteenth century, while we reserve for the twentieth century, the distinction of introducing more generally into modern civilization, the methods of care, which have been sporadically in vogue for the past two or three decades, and which I shall endeavor to presently describe.

In passing I need simply say, that previous to the latter half of the nineteenth century, the insane were treated worse than criminals, reduced to a condition more degraded than that of imprisoned animals. Naked, or in rags, they lay chained in filthy cells, with only straw to lie upon, without light or air, deprived of water and the common necessities of life. It was actually not until 1840, that these horrible asylums for the insane began to undergo a gradual metamorphosis into the real hospitals of the present time. These facts are true of all Europe and of the United States, including Massachusetts and Pennsylvania, for all parts of the civilized world share in the shame of this story.

The painful sense of the barbarous methods by which they were coerced,—the conviction that this was inhuman and therefore wrong, led to a definite attempt at a radical reform,—a reform which was accomplished under strong prejudice, ignorance and stubborn opposition. From this universal neglect and cruelty of earlier years, the evolution of humane methods of treatment has been exceedingly slow. In spite of the early hardships and poverty of this country, the first movement for the proper treatment of the insane, showed itself in America. Massachusetts, Pennsylvania, Virginia and New

York were the leading States of the Union in this direction. Massachusetts has always been one of the pioneer States in the care of the insane. Massachusetts and New York are in the lead to-day.

We may, therefore, date the time of transformation of asylums into hospitals for treatment of the insane, close upon the middle of the nineteenth century.

The beginning of the nineteenth century saw in the whole United States, but four insane asylums, of which only one had been maintained entirely by a State Government. They were in the order of the dates of their foundation: Philadelphia, Pa., 1752; Williamsburg, Va., (the first State asylum) 1773; New York, 1791; Baltimore, Md., 1797. In 1813, attention was attracted to Tuke's work among the insane in England, by certain Philadelphia Friends, who, collecting funds, opened in 1817 a hospital in which the insane might see that they were regarded as "men and brethren." This institution, as you are all well aware, continues in existence, and is known as the Friends' Asylum.

One year later, 1818, witnessed the foundation of the McLean Asylum at Somerville, Mass., as a branch of the Massachusetts General Hospital, now located at Waverly, Mass., and known as the McLean Hospital. This institution has always held a leading place in the progress of the times, and established the character and principles of treatment which have become universal with us, especially the principle of State supervision. Massachusetts built her first State hospital in 1832, when that at Worcester, (now used as a chronic asylum) was erected. It was opened in January, 1833. At that time there were but eight other institutions in the United States, especially devoted to the care and custody of the insane. Four of them were incorporated, and only three—in Virginia, South Carolina and Kentucky—belonged to the States, respectively, within which they were situated.

A summary of the Massachusetts institutions, at the present time, shows that the State has amply provided for its defectives as follows—six State hospitals, four asylums for the chronic insane, one for insane criminals, one for epileptics, one for dipsomaniacs and inebriates. In addition to the above, we have the family care for the harmless insane, the McLean Hospital and twenty private institutions for the insane. For the feeble-minded, there are three State institutions and one

private institution, a total of seventeen State, and twenty-one private institutions.

The methods of treatment of the insane have undergone a radical change for the better, especially within the last two decades. We can not claim to have reached perfection, although great advance has been made, and the State is constantly putting forth every effort to treat humanely and scientifically, those on whom the heavy hand of affliction has fallen. At the present time, we are especially interested in a *rational medical treatment and cure of insanity*, as well as the enlightenment of the public in efforts for the prevention of the increase of same. To accomplish this, laboratories have been and are being established in our State hospitals for scientific investigation in conjunction with proper facilities to care for the insane in our large cities and in connection with our State hospitals.

In the past, greater attention was placed upon custodial care rather than upon other features which we now recognize as equally important,—these are the examination and treatment of the individual case. Nevertheless, during the period of humanitarian and empirical treatment, the material welfare of the insane,—their housing, comforts, amusements,—moral and physical care, had reached a high degree of excellence. The ideal institution, however, has not been attained. Too few of our State institutions are properly equipped for conducting the best therapeutic methods in the treatment of the acute and curable cases. The tendency, to a degree at least, to thrust the newly admitted among the “common herd,” continues. By this method, there is danger of losing the mental identity amid the general throng. To convince one’s self of this lamentable state of affairs it is only necessary to pass through the crowded wards of institutions improperly equipped for the reception and care of recoverable cases.

Every hospital for the care of the insane has two chief functions,—namely curative and custodial. In the care and management of the insane at the present time, it is necessary to have adequate accommodations for the reception and proper classification, and facilities for the treatment of the newly admitted cases,—especially those of the recoverable class. The hospital care and nursing of the mentally diseased should be conducted by well organized methods, similar

to that in a general hospital, for the therapeutic requirements are often quite like those required for bodily diseases.

In Massachusetts, the present system of State care recognizes their classification into three main groups: (1) the acute and curable class—their study, treatment and cure—the psychopathic hospital division, with proper equipment for hydrotherapy, electrotherapy and sanatorium treatment. (2) The chronic insane of the custodial class, who require strict supervision and confinement for the protection of themselves or the public,—and those of the infirmary class, both of which classes are suitable for care on a plan having a compact arrangement of buildings, and which embodies the asylum idea. (3) The class of chronic, able-bodied, harmless insane, who are competent, or may be taught to do some useful work toward self-support and can be allowed greater liberty and more home-like conditions—the colony idea. (4) Including the segregation of the tubercular cases into sanatoriums connected with the colonies.

An up-to-date Massachusetts State hospital, therefore, has three distinct divisions—the psychopathic hospital, consisting of the small hospital buildings—the asylum and the colony, including a tubercular sanatorium. With pardonable pride, I think I may state, that the Westborough State Hospital is one of the Massachusetts State Hospitals which has progressed along the lines indicated. As this paper is to deal only with the psychopathic department, I will, therefore, endeavor to give a brief resumé of our work and methods, to give you a passing glimpse, as it were, of the noticeable progress made in recent years in the care of the insane, and our reason for using the term “psychopathic” division in connection with the Westborough institution. This department was established on its present basis in 1903, and consists of three buildings, designated as the Codman, Childs and Talbot.

Codman was erected in 1903 and is a two-story building, having a capacity of forty-four men of the disturbed and semi-convalescent class. On each floor there are three dormitories, two with seven beds each, the other with three beds, and five single rooms. Each floor has a bath room with four and three tubs respectively. There also are shower baths.

The Childs building was erected during 1909, with a capacity for sixty patients, and cares for women of the same class. It is a modification of the former building with im-

provements, the result of added years of experience. (Each floor has two seven bedded dormitories, several three bedded rooms in addition to single rooms, and a day room). The second floor, where the disturbed patients are cared for, has two rooms for hydrotherapeutic purposes—a bath room with five tubs for continuous baths, and a room containing the hydrotherapeutic apparatus for various douches and sprays. The first floor has a bath room with three tubs. Each floor has an electrical room equipped with high frequency and X-Ray apparatus, galvanic and faradic cabinets with sinusoidal attachments, a leucodescent lamp and a reclining electric light cabinet. In connection with this building we have a spacious two-story veranda, thirty feet by thirty feet. On the second floor of this veranda, which is screened, we have accommodations for eight beds, six reclining cots, and some steamer chairs. Here, patients who are not noisy and do not show too great unrest, are cared for day and night. On the first floor veranda, there are reclining cots and steamer chairs where semi-convalescent patients are cared for.

The Talbot house was the nucleus of this division with a capacity of sixty-six patients, accommodating both men and women of the convalescent type. The majority of voluntary admissions consisting of border-line cases and those suffering from neurasthenia and psychasthenia, are received in this building which was erected in 1898, with the idea of giving certain isolation and different surroundings to quiet and seemingly hopeful cases, as well as for patients who are becoming convalescent.

In the psychopathic department two divisions are essential—one for disturbed and semi-convalescent, and the other for quiet and convalescent cases. Buildings in themselves are of little consequence, no matter how well constructed and equipped, without actual medical work and competent nursing, very much along the same line as in a general hospital.

With this end in view, in 1903, the recoverable and doubtful cases, both men and women, were placed under the care of one physician, that these patients should have every care and consideration and that all admissions should be carefully studied. In the care and treatment of the acute and curable case, the question is foremost at Westborough—how well can they be cared for,—not how economically can each patient be treated. Therefore, nothing is knowingly left undone that

would in any way interfere with the highest possible standard of care.

Our results have been so gratifying, that in order to give an idea of what is done for a patient upon admission to the hospital, I shall give a brief summary of our method of procedure.

Each patient is at once placed in bed for a preliminary course of rest, varying from two to four weeks or three months or even longer, and treated as physically ill from the onset. In this way the most familiar means of suggesting and securing bodily and mental rest are employed. At the time of admission, a superficial physical examination is made, for injuries or any disorder requiring immediate attention, and later, a more extended general examination following a definite outline, including a urinalysis, which is always made in every case and where indicated, an examination of the blood as well as examinations of other secretions and excretions. In order to have a good foundation for diagnosis and treatment, a mental examination is made as soon as possible after admission. The records include, so far as can be obtained, complete family and personal histories.

The insane, as we all know, are subject to the same diseases as normal individuals; a nurse caring for the mentally irresponsible should possess as high, or even higher, qualifications than the general nurse. It is through her, that the more or less prolonged period of rest and treatment in general is carried out, and we are thus enabled to make regular observations of temperature, pulse, respiration, condition of the digestive organs, amount of sleep, weight and mental condition. Through rest in bed, the patient is more carefully and regularly observed. The nurse is better able to see that the patient has proper nutrition, serving him not only with three regular meals, but also lunches between meals, which consist of broth, milk, egg-nogs and other nutritious liquids. The majority of patients on admission, show defect of metabolism. It is, therefore, important that the appetite should be improved, and with it, assimilation, as an essential feature in the treatment of these cases is the bringing about of gain in weight,—thus lessening the intensity of the mental symptoms, resulting eventually either in their abatement or disappearance. Throughout, skilled, kind and tactful nursing is an important factor in the treatment of the insane; without it, the best medical efforts may fail.

Of the various therapeutic agencies in the treatment of the insane, hydrotherapy is by no means of minor importance. The continuous neutral tub baths used extensively in this hospital for certain maniacal conditions, as well as in restless, agitated and depressed cases, is a most satisfactory sedative. The baths are prolonged from two to three hours per day to one or two days, and isolated cases are often in the tub day and night for one, two and three weeks. The patients are under the constant supervision of a nurse, and their meals and lunches are given them in the tub. The temperature of the baths is kept uniformly at ninety-six degrees Fahrenheit, and should not range below ninety-two degrees, nor above ninety-seven degrees; we can thus prolong the bath for an almost indefinite period without producing exhaustion or any ill effects. Warm packs are also extensively employed, especially in cases of extreme excitability, with psycho-motor unrest, where it is difficult to continue the prolonged bath. They are applied at body temperature, and after the patient is removed from the pack for proper reaction, a cold sponge or a cold spray bath is given. Various shower baths and douches are employed for their special indications, more particularly in graduated form for the tonic effect. Electric light baths are important as an eliminating procedure.

Next in importance to rest, diet and hydrotherapy, is the out-of-door treatment. Through this method of rest, mental and physical improvement is promoted from the onset. Sleep and appetite is improved, assimilation is increased and the blood is better oxygenated. The result is a more rapid improvement in the general appearance. Following beginning convalescence, the patient is transferred to an intermediary ward where the rest in bed is gradually shortened by gradations which depend upon the progress of the individual case. They spend part of the forenoon and afternoon out-of-doors on the veranda reclining on cots and in steamer chairs, and those who have made sufficient progress are taken for walks. In this way, they begin to take exercise. With some patients the prolonged tub baths are continued on an average of two hours daily.

By this method, progress is more uniform, there is less tendency to fatigue and relapse in the course of improvement, especially if the various changes are gradual and made judiciously.

In order to conserve physical strength, I consider a period of rest in bed of two hours duration after the mid-day meal important in this connection.

Through these various steps and changes, the patient gradually appreciates the progress that is taking place, readily co-operates, and the results are usually very gratifying. The restlessness, acute excitement or depression, delusions, illusions and hallucinations in due time, disappear.

If a patient continues convalescent with no relapse, he is transferred to the convalescent building, there to enjoy the greater freedom of out-of-door life and liberty, with the privilege of going about the grounds of the hospital unattended. A patient so privileged often accompanies another where companionship seems beneficial to one whom the privilege could not be granted without some supervision. Many are permitted to go to the neighboring villages and cities for outings, or to shop. We have a cottage which accommodates eight women patients where there is no nurse in attendance. The object is to develop further self-control in patients sent there and the ability to get along without supervision. Each patient is put upon honor and is expected to do her share of the work.

In due time, they are encouraged to take an interest in their surroundings. Very often this is evinced voluntarily—the assisting of nurses with the work on the ward in its various forms, and the gradual awakening of interest in other patients shown by the manifestation of confidence in their treatment and encouragement of their progress,—indirectly benefiting themselves, as well as others. Then with the progress of the individual patient primarily in view, routine employment is encouraged. The men are permitted to assist in various departments of the hospital,—greenhouses, work on lawns, etc. The women work with raffia, embroider, or engage in occupations of their own for which they may have a preference. For amusement and diversion, we have games in the wards, weekly dances and various entertainments. The women have been much interested in a club organized by them, known as the “Optimist” club, which meets once a week. The club has successfully given entertainments which furnished diversion for the members and entertainment for non-members.

In treating the acute insane, including border-line cases and

patients suffering from neurasthenia, the employment of the *materia-medica* of our fathers, namely the single homœopathic remedy, is of the utmost importance. Every patient is treated as an individual, and the single remedy is prescribed in accordance with the totality of the mental and physical symptoms. In addition to this, psychotherapy, suggestion, re-education, personal attention or influence, (call it what you will in its own way) reacts on the mentality of the patient, and are important factors in the treatment of this class of patients.

We all know that preventive medicine—public medicine—is now that branch of our profession which is in the ascendant, and which is most looked to for future results. It seems to me, that mental science should become a part of public medicine. The public, and that part of the medical profession not directly interested in the subject of mental disease, remained too long uninformed of the causation of insanity. The time has arrived when the medical profession should impress upon Boards of Health, the importance of observing certain laws of mental hygiene in the home and school; by so doing, conserving the health of the child; also the role played by syphilis and alcohol—both prolific and avoidable causes of insanity.

The public should be made to realize that in insanity as in most human ills, prevention is better than cure. Insanity is a disease,—not a disgrace, and demands early treatment. The plea I wish to make at this point, is in behalf of incipient insanity, which includes a large class of neurotics under the head of neurasthenia and psychasthenia; many of these are on the danger line of insanity, and if not properly cared for, drift along until they become hopeless; therefore, early treatment is imperative.

At this point, I desire to call your attention to voluntary admissions, a form of admission to public hospitals very liberally utilized in Massachusetts. The voluntary patient realizes his condition and undergoes treatment early. Nearly twenty per cent. of our cases in the psychopathic division come voluntarily, and the number of such admissions has increased yearly since the establishment of this department. In the State of Massachusetts the law regarding them is very liberal. Those who are unable to pay the private rate may, with the approval of the State Board, be admitted chargeable to the State.

Two years ago, I made a study of the admissions of the

recoverable cases for a period of five years previous to March 1st, 1908. During the five year period, the yearly percentage of admissions to this department increased seventy-three per cent. This large increase we considered as due to the recognition of the fact that there is such a department in connection with the Westborough Hospital, and that recoverable and voluntary cases receive separate and special attention.

The percentage of the recoverable group reckoned upon the total admissions for the five year period, which included manic-depressive insanity, exhaustion psychosis, dementia praecox, alcoholic insanity, involution melancholia, hysterical insanity and toxic insanity, was 46.31 per cent. Of the above classification, I called special attention to two forms having the largest number of admissions,—namely, manic-depressive insanity and dementia praecox. The former, which is considered the most hopeful of all the recoverable forms, had a recovery rate of 70.65 per cent. Nevertheless, the latter (dementia praecox), considered one of the less hopeful types, had a recovery percentage of 20.83 per cent. It was also interesting to note that the average hospital residence in months lessened from 6.76 to 3.47 months.

The last report of the Massachusetts Board of Insanity, published January, 1910, gives the total number of insane, feeble-minded, epileptic and inebriates under its care, as 14,374, being one such person to every 227 of the estimated population of the State. The whole number of such persons under public care was 13,988; under private care, 386. Of the insane, there were 12,052, or one insane person to every 270 of the estimated population of the State. The increase of the insane under care for the year was 508, compared with 776 the previous year. The average annual increase for the last five years was 423; the last ten years 40, and the last twenty-five years 333. The average requirement for provision for the increase of these classes in Massachusetts is about 500 beds annually.

These figures, before intelligent people need no comment, for they are of themselves sufficiently illuminating to show the gravity of the problem. Beyond this, however, must be considered not only the annual expense to relatives and taxpayers, but also the loss to the accumulated wealth of a community of the productive power of an able-bodied, mentally sound citizen.

CONTRIBUTED ARTICLES

FRACTURES IN AND ABOUT THE ELBOW JOINT.

BY

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(Read before the William B. Van Lennep Clinical Club.)

THE success of the treatment of a fracture is measured by the restoration of the anatomical integrity and the recovery of function; of the two, the latter is of the greater consequence. Since the advent of the Röntgen rays our knowledge of fractures has been greatly enlarged, but very much yet remains to be accomplished in their treatment.

Before considering the injuries of the elbow joint it may, perhaps, be of use to consider the development and anatomy of the bones which form it. The lower end of the humerus is composed of the shaft, the internal and external condyles and epicondyles, the trochlea and capitellum, the last two making up the articular surface.

There are four epiphyseal centers, ossification beginning in the internal epicondyle about the fifth year, in the trochlea in the twelfth year, in the capitellum in the second year and in the external epicondyle in the thirteenth year. If this is not borne in mind when examining an X-ray plate an ossifying nucleus with its surrounding transparent cartilage may be mistaken for a detached fragment of bone.

In early childhood these four centers form the epiphysis and the line separating them from the diaphysis is almost transverse. As the shaft grows downward it detaches the conjugal cartilage of the internal epicondyle and carries it mesially, so that it becomes an individual epiphysis and at puberty is separated from the trochlea by six millimetres of the shaft. From the fourteenth to the sixteenth year the trochlea and capitellum blend to form one articular surface and later unite with the external epicondyle to become the lower epiphysis of the humerus, which unites to the shaft by

the seventeenth year. The epiphyseal line then is oblique and extends from the upper margin of the external epicondyle to the inner edge of the trochlea. Union between the internal epicondyle and shaft does not occur until the age of nineteen.

Of less importance is the development of the osseous nuclei of the upper extremities of the ulna and radius. Ossification begins in the former about the tenth year, and it unites with the shaft about the sixteenth. As the greater portion of the olecranon process arises from the diaphysis, the epiphysis usually forms only a layer of bone at the tip. Ossification of the upper epiphysis of the radius commences in the fifth year and it unites with the shaft about the seventeenth or eighteenth to help make up the head of this bone.

An examination of an elbow joint should first disclose whether the normal bony relationships have been disturbed. The head of the radius should be easily palpable one-half to three-quarters of an inch below the external condyle. If the radius is intact pronation and supination of the hand will cause it to rotate under the examining finger.

When the forearm is extended the tip of the olecranon should just reach a line drawn from one epicondyle to the other.

The length of the arm is ascertained by measuring from the tip of the acromion to the internal epicondyle, and of the forearm from the internal epicondyle to the styloid process of the ulna.

With effusion into the joint a fluctuating swelling takes the place of the normal depression on either side of the triceps tendon and olecranon. This is best detected if the forearm is extended to 145 degrees. If considerable it may be felt around the head of the radius, for the synovial membrane of the superior radio-ulnar articulation is continuous with that of the elbow joint.

Fractures of the lower end of the humerus include:

A. Supracondylar—A transverse or oblique fracture in the expanded portion of the bone just above the articular surfaces.

B. Fracture of the internal condyle.

C. Fracture of the external condyle.

D. A longitudinal fracture.

E. V, Y, T-shaped fractures. These are combinations of the forms already mentioned.

- F. Fracture of the internal epicondyle.
- G. Fracture of the external epicondyle.
- H. Fracture of the articular process.
- I. Separation of the epiphysis.

The supracondyloid fracture is usually produced by indirect violence, as a fall upon the hand, the line of fracture extends upward and backward and forces the lower end of shaft under the biceps muscle; rarely, by direct violence, when the fracture will run from behind upward and forward and the lower fragment will be carried forward. In young patients a low fracture may almost coincide with the epiphyseal line with an outward but more commonly an inward displacement. With the latter an angular deformity often exists, which, if not overcome, may produce marked loss of the carrying power of the arm (decubitus varus or gun stock deformity).

Beside the pain, swelling, ecchymosis and loss of function, which are common to all elbow injuries, the principal symptoms are the deformity, the abnormal mobility and the line of tenderness. The usual deformity resembles that of a backward dislocation of the forearm. In both there is a sharp projection of bone beneath the biceps and the forearm is carried backward. With a fracture the tip of the olecranon will just reach the intercondyloid test line, the head of the radius will lie below the external condyle and the arm will be shortened. On the other hand, with a dislocation the olecranon and head of the radius will be behind the condyles and there will be considerable shortening of the forearm. If the deformity is reversed the lower end of the shaft can be felt under the triceps and the elbow joint will lie anterior to this.

The prognosis is favorable and the treatment is reduction by extension of the forearm with counter-extension of the arm.

Care should be used to see that the reduction is complete, otherwise full flexion will be interfered with. The best forms of splints are the anterior angular or the internal right angle. The former is sometimes indicated during the first two weeks, but in our experience the latter will answer in the majority of cases from the first and is much more comfortable.

If there is any lateral deviation the arm should be put up in extension with the normal abduction of the forearm preserved, or the patient should remain in bed one week with the elbow flexed and the forearm held in a vertical position by weight. At the end of four weeks all dressings can be re-

moved and active and passive motion and massage instituted.

Fracture of the internal condyle runs obliquely downward and outward through the trochlea to the joint surface; similarly, that of the external condyle involves the capitellum and sometimes even the trochlea. These fractures may be obtained by indirect violence, the ulna or radius being driven against the trochlea or capitellum, when the joint is flexed by forced adduction or abduction, or direct pressure from a fall upon the elbow. The external condyle is more commonly fractured than the internal.

The diagnosis may be very difficult on account of great swelling which appears early. As a rule, in uncomplicated fractures, the displacement of the fragment is not marked, being limited by its attachment to the bones of the forearm. When present it is usually downward and forward, though this may be reversed. Again, the fragment may be rotated so that the articular surface may present in any one of various directions. Loss of function is greater with the internal condyle, and with the forearm extended abnormal abduction is easily obtained in this variety, while fracture of the external condyle allows considerable adduction. This is a very important symptom, for normally there is no lateral motion in an extended elbow joint, and it is usually easily demonstrated. Pressure of the injured condyle against the shaft will cause pain, and widening of the joint, which may be difficult to recognize on account of the swelling, is always present.

The outcome in these fractures with slight displacement is good, but with much deformity and, particularly, with rotation of the fragment good reposition is exceedingly difficult and often impossible, so partial or complete loss of function frequently follows.

A number of surgeons have opened the joint and reduced a badly displaced fragment, but the results of open operation hardly indicate this procedure except in occasional cases.

The arm may be put up in extension to prevent cubitus varus or valgus, in a right angle splint if the deformity is not great, but in our experience good results have been obtained in a number of cases by bandaging the arm in a position of acute flexion. The principal point in the treatment is reduction, and if this can be accomplished the retention is not so difficult. After the second week the elbow should be extended to less than 90 degrees, as that position will give the most useful limb if ankylosis results.

A longitudinal fracture runs from the articular surface of the capitellum or trochlea into the bone. It cannot be recognized without a skiagraph, for swelling, intra- and extra-articular, pain, tenderness and loss of function, though present, are not characteristic of any particular lesion. The prognosis is good and rest for four weeks is all that is necessary.

The V, Y and T-shaped fractures are a combination of the foregoing, are harder to diagnose accurately, often impossible without the aid of the X-rays, more difficult to reduce and offer a correspondingly worse prognosis. Partial or complete loss of function is the rule. It is remarkable, however, how useful a limb is sometimes obtained with incomplete reduction of the deformity.

The diagnosis and treatment is based upon that already outlined when considering the separate fractures, but it may be necessary to manipulate and mould the fragments several times before the result is satisfactory.

Fractures of the external epicondyle, exceedingly rare, and of the internal epicondyle are extra-articular and can best be made out by mobility of the fragment. The injury is usually due to direct violence, muscular action or a pull upon the lateral ligaments. The injury, as a rule, is unimportant and easily repaired by fixation of the joint, unless the ulnar nerve is pressed upon by the internal epicondyle or caught in its callus. Then excision of the fragment is indicated if the neuritis does not quickly subside. Either of these lesions may accompany dislocations and must be sought for in those injuries.

Epiphyseal separation closely resembles a supracondyloid fracture, generally the displacement of the lower fragment is backward, occasionally forward and often lateral. The lower end of the shaft is broad and regular and the relationship between the internal epicondyle and olecranon will be disturbed if the former remains attached to the shaft, and this may occur if the patient has passed the age of puberty.

The prognosis is favorable and danger of shortening of the humerus from interference with the growth of the epiphysis is not great. The treatment is the same as that of the supracondyloid fracture.

Fracture of the articular surface may involve the trochlea, the capitellum, most frequently, or both, and, being intra-articular and the fragments small, is exceedingly difficult to

diagnose and a very serious condition. Pain, swelling, loss of function, and, perhaps, moist crepitus are the most suggestive symptoms, but a positive diagnosis can only be reached with the aid of the X-rays. Every effort, guided largely by the radiographs, must be exerted to accurately adjust the fragments, otherwise ankylosis is inevitable. The arm should be put up with the elbow flexed to within a right angle.

The olecranon process may be broken by direct violence, by muscular action, but probably most frequently by a fall when the contracted triceps holds the olecranon fixed and the forearm is suddenly and strongly flexed.

Most statistics place this fracture among the rare ones, but we believe that it is more frequent than is suspected. While the text-book picture of wide separation of the fragments is met, in the majority of our cases the displacement was slight, in a number of instances a little pain, tenderness, loss of function and slight abnormal mobility being the only symptoms upon which to base the tentative diagnosis which was borne out by the X-rays.

The olecranon is surrounded by the tendons of the extensor muscles, ligaments and capsule of the joint, and unless these are torn through, marked separation does not take place. It is impossible for the tip of the olecranon to be drawn out of the olecranon fossa unless the triceps is torn from the humerus, and this must be a rare accident, so the fragments can be approximated with complete extension of the forearm unless inflammatory exudates, strips of periosteum or similar impediments are present.

The diagnosis is easy if the characteristic symptoms, already enumerated, are present, but a careful examination of the olecranon should be made in every injury around the elbow joint. In doubtful cases the most reliable symptom is lateral motion of its tip. If the displacement is great enough crepitus may be an accompaniment, and when there is not too much swelling the line of fracture can be felt.

Many cases recover with fibrous union, but if the bones are not widely separated little if any loss of extension is noted.

The treatment is extension, and a plaster cast is the most comfortable form of dressing. At the end of two weeks the arm can be flexed to a right angle, and all dressings removed in four weeks. Occasionally suture of the fragments is called

for, and this can be accomplished without entering the joint and with good results.

The coronoid process of the ulna is usually chipped off as a complication of a backward dislocation of the forearm. It is then recognized by the recurrence of the dislocation after reduction. The treatment is that of the principal lesion. If it occurs alone it may be suspected from localized pain, tenderness and loss of function, but the X-rays are necessary to establish a diagnosis. The treatment is rest in a flexed position.

Fracture of the head of the radius may be induced by direct violence, forced abduction, a fall upon the hand or complicate a backward dislocation. The size of the fragment varies, usually it is about one-fourth to one-third of the circumference. If the displacement is marked enough the fragment may be felt subcutaneously, otherwise a diagnosis is only positive with the Röntgen-rays, though it may be suspected from localized tenderness and effusion. If completely separated it is probably best to remove the fragment, but immobilization followed by massage and passive motion hold out fair hopes of success.

Fractures of the neck of the radius are oblique or transverse, and may accompany dislocation or follow direct or indirect violence. One of our cases was with an inward and backward dislocation and made reduction impossible. Operation was refused and the patient disappeared. Two other cases in which crepitus and incomplete rotation of the head, accompanied by effusion into the joint, were present recovered good function after immobilization. In one the displacement was slight, but in the other, which was oblique, the X-rays showed considerable angulation which we were unable to overcome. Excision should only be resorted to as a last resort.

In the treatment of all joint injuries a form of treatment which must always be borne in mind and energetically carried out is to fight inflammation with cold, heat and other forms of antiphlogistics.

THE DIGESTION OF STARCH.

BY

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NOWHERE in Scientific Medical literature is there such wide difference of opinion as in the study of the processes of nutrition. The cause of the great discrepancy may be traced directly to our incomplete knowledge of the subject.

The followers of Fletcher believe that a most thorough mastication is the all important thing while another man equally famous says this practice is not necessary and everything should be swallowed whole, citing, for example, the carnivorous animals which usually do not spend much time chewing but consume food in much the same manner as a vacuum dust renovator.

Professor Chittenden and his many adherents think that health is benefitted by eating only such quantities of food as will be required to replace the amount of tissue actually consumed in body metabolism plus a slight excess. His many classic experiments have demonstrated that it is possible to retain health, strength and ability to work for a long continued period upon a diet approximating the actual nitrogen balance.

Dr. Emmerson takes the other extreme and points out the innumerable cases where nature is excessively wasteful and states that a great excess of food is certainly advantageous and is needed for the nutrition and to allow a selection of desirable material for any special anabolism.

At the present time the masses do as they have always done. Some dine on a lettuce leaf and a glass of water and others dine like the monks when they entertained, which has been tersely described as follows:

"After the frills and appetizers the most delicate cuts of every known eatable animal is served in one grand procession. The meats are interspersed with generous portions of every known eatable plant. When all have eaten far beyond the limit of human endurance, then come the long black cigars, coffee, several mugs of beer, the wines and the dessert."

It is safe to assume that there is a great variety of conditions that must be taken into consideration in the study of the

reactions that take place in the alimentary canal. Some few evidently have digestive apparatus capable of transforming food into soluble products in much the same way as is indicated in some of the spectacular displays we see in the drug store windows where one tube contains samples of beans, peas, cheese, dried beef, cabbage, nails, tooth picks, feathers and lath preserved with formaldehyde and sodium benzoate. Presto! The other tube contains a perfectly clear liquid and represents the marvelous action of one digestive tablet on the first combination.

The materials which are necessary for the proper development and nutrition of the human body can logically be divided into five classes: Water, Proteins, Carbohydrates, Fats and mineral substances.

Proteins, Carbohydrates and Fats are often spoken of as the trinity of nutrition, although large amounts of water and small amounts of mineral substances are absolutely essential. Larger amounts of Carbohydrates are consumed than any other class, except water and of the carbohydrates more starch.

Obviously, the changes which take place in the body in transforming starch into a form capable of being assimilated depend largely upon the many conditions that are liable to exist in the alimentary canal. For example, if food is masticated thoroughly the amylolytic enzyme present in the saliva is given an opportunity to act on a part of the starch, and the food is in a much finer state of division on reaching the stomach.

The saliva itself is a mixed secretion from the parotid, submaxillary and sublingual glands. The secretion from the parotid glands is very watery, free from mucin but rich in ptyalin, contains more mucin than the mixed secretion, and that from the sublingual glands is the richest in solids, the most viscid and the most alkaline. It has been shown that the ratio of these secretions is not fixed but that each is especially stimulated under certain conditions. The degree of alkalinity may also vary. Few people realize that the total amount of saliva secreted is nearly equal to the amount of urine being approximately fifteen hundred cubic centimeters in a single day.

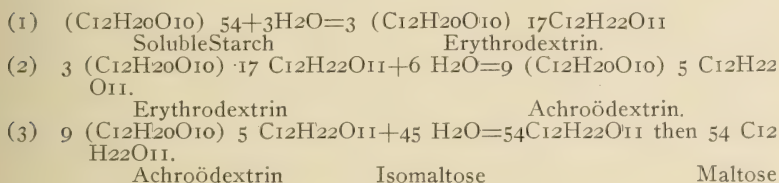
The first change that may take place in the transformation

of starch is caused by the saliva and the extent of action depends largely upon the degree of mastication.

Ptyalin the important amylolytic enzyme of the saliva is similar to but not identical with the diastase of malt extract. It converts cooked starch to the various modifications of dextrin and maltose, but has little if any action on uncooked starch. Body heat is its optimum temperature and while its action is not destroyed by dilute alkalies the presence of more than a trace of acid prevents entirely its function. Its action is shown by Neumeister as follows:

Starch, Soluble Starch (Amylodextrin), Erythrodextrin, Achroödextrin a, Achroödextrin b, Achroödextrin c, Maltose. With each transformation Maltose is formed in addition to the other product.

Simon states in his Physiological Chemistry that, "Through the action of ptyalin the insoluble starch is first transformed into soluble starch (amylodextrin) and is then successively decomposed by hydrolysis into erythrodextrin, achroödextrin, iso-maltose and finally into maltose as is shown by these equations:



That several modifications of dextrin are present is shown by the various reactions seen with iodine. Erythrodextrin produces a red color with iodine while achroödextrin gives no color.

It is evident that these reactions are seldom complete in the mouth and also the complete quantitative transformation into maltose would be contrary to the general action of enzymes.

The action of Ptyalin is quickly destroyed by an acid media equivalent to 0.003 per cent. of hydrochloric acid. In the stomach its action may continue for some time as the middle portion of the bolus of food is not disturbed by the acid at once. The stage of hydration brought about by the ptyalin will depend upon the time its diastatic action is interrupted. Saliva possesses another favorable property. It has been

shown that food mixed with saliva is more easily penetrable by the gastric juice than when not so mixed.

The gastric secretions usually begin to flow when food first enters the stomach. Even the sight of food often excites gastric secretion. The three sets of muscles surrounding the stomach keeps the food in motion for several hours and mechanically mixes it with the gastric juices. From time to time portions of the liquified contents now known as chyme are forced into the duodenum. It is generally considered that digestion of starch in the stomach is practically negligible except for the very little transformation that probably takes place before the ptyalin comes in contact with the hydrochloric acid of the stomach.

The presence of an amylolytic enzyme capable of acting in the acid medium of the human stomach has not been announced but Friedenthal *Archiv für Physiologic* 1899 Bd. 383, states that the gastric juice of the dog contains an amylolytic enzyme capable of action on starch even in the presence of one half per cent. of hydrochloric acid.

A few months ago in trying to demonstrate the activity of the amylolytic ferments used in preparing Elixir of Lactated Pepsin, experiments were made upon solutions of cooked starch. No transformation was detected under any of the numerous conditions tried in glass, and in view of the advantageous results reported clinically various mixtures of cooked starch and Elixir of Lactated Pepsin were fed to guinea pigs, and digested in freshly extirpated stomachs. I was surprised to note complete or partial transformation in many cases despite the acidity of the gastric juice. It was reasonable to infer that the pancreatin and diastase which were originally added to the Elixir, might be active under physiological conditions. However, on making blank experiments without the addition of any Elixir of Lactated Pepsin similar results were observed corresponding to the starch transformation previously noticed. (See *Proceeding of American Pharmaceutical Association*, 1909).

The following experiments have since been made and seem to indicate the presence of an amylolytic enzyme in the stomach of guinea pigs which is active in acid media.

Experiment 1. Took stomach and intestines from guinea pig immediately after death and washed them with physiological salt solution (0.65 per cent. sodium chloride). Five cubic

centimeters of a five per cent. starch paste was put in the stomach and an equal amount in the intestine. After ligating they were digested in a beaker of physiological salt solution at 37 degrees C. for two hours, when contents were filtered through paper and to the filtrates a few drops of saturated aqueous solution of iodine were added.

Results: Decided reddish blue and different entirely from blank test showing partial hydrolysis in both filtrates from stomach and intestine.

Experiment 2. Took pig immediately after death, opened abdomen and injected about 5 c.c. of two per cent. starch into each, the stomach, the first portion of intestine, and the colon, using a strong syringe and a fine hypodermic needle. The opening made in abdomen was carefully sewed up and the whole pig put in water at 37 degrees C. for two hours when contents were tested as before. Results similar to Experiment 1.

Experiment 3. Fed pig for twenty-four hours previous with nothing but oatmeal which contains considerable starch—then gave per os through catheter 10 c.c. of five per cent. starch paste. At the end of two hours the pig was chloroformed and contents of stomach, various portions of the intestines and of the colon were tested with iodine for starch.

Results: In the stomach all the starch was not converted but a very marked transformation was seen. Contents of intestines gave no test for starch.

Experiment 4. Same as No. 3, except that 10 c.c. of 3 per cent. starch paste was used.

Results: In stomach nearly all the starch was converted. Contents of intestines gave no test for starch.

In the first two experiments considerable starch transformation was noticed in the stomach and intestines and in the case of pigs previously fed on oat meal a complete absence of starch was indicated in the intestines showing a complete transformation.

Corresponding results have been obtained in freshly extirpated stomachs and intestines of the domestic hog (*Sus scrofa*) and in the wild rat. (See Proceedings of American Pharmaceutical Association, 1909). That the transformations noticed were not caused by injected saliva can be seen by the fact that the extirpated stomachs were previously washed out with physiological salt solution and the starch

paste added in a liquid form which would easily allow of thorough mixing.

In order to determine if the other classes of foods, namely the proteins and fats interfered with the observed action, the following experiments were made:

Experiment 5. A cereal decoction containing four per cent. of starch was mixed with an equal volume of skimmed milk, practically fat free, and ten cubic centimeters fed to a guinea pig per os through catheter. After two hours the pig was chloroformed and contents of stomach and upper intestine tested for starch.

Results: Large amount of starch had been transformed in the stomach and starch was found in the intestine.

Experiment 6. A cereal decoction containing four per cent. of starch was mixed with an equal volume of whole milk (about four per cent. fat) and ten cubic centimeters fed to a guinea pig per os through a catheter. After two hours the pig was chloroformed and contents of stomach and jejunum tested for starch.

Results: Considerable starch had been transformed in the stomach and no starch was found in the intestine.

Experiment No. 5 indicates that starch transformation takes place in the presence of protein (Casein) and Experiment No. 6 indicates that it will take place in the presence of both protein and fat, but at the end of two hours, considerable starch is present. Is it not reasonable from the above experiments to believe that starch conversion also takes place in the stomach and that the view usually held should be modified?

It is well known that acids transform starch into soluble products and can it be that the transformation noted above is caused only by the action of hydrochloric acid or the stomach on the starch? This can, no doubt, be determined by a careful analysis of the two products. Starch is converted by the saliva into maltose, starch is converted by acids into dextrose.

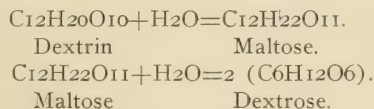
Some authors seem to regard the stomach as largely a receptacle for food and that one of its chief functions is to bring the ingested food to the body temperature.

The intestines are considered to be the site of most of the carbohydrate digestion. The pancreas is often considered to secrete all the amyllopsin or starch converting enzyme. It has been shown that the digestion of starch takes place in the

intestine after the removal of the pancreas, therefore there must be a second or a reserve source of supply. The second secretion is formed in the intestinal wall. That the enzyme is secreted as active amyllopsin is doubtful, many believing that it is secreted in an inactive form and only becomes active below the bile duct after coming in contact with the bile. However, an extract made directly from the pancreas will transform starch.

In any case the transformation of starch into soluble products is similar if not identical to those observed with saliva.

Starch is absorbed mainly in the form of dextrose and this hydrolytic transformation from dextrin and maltose is brought about by the sugar splitting enzyme invertin of the mucous membrane:



It is quite probable that some levulose is also formed.

Much uncertainty exists owing to our incomplete knowledge in regard to the absorption of these products. Certain it is that the soluble compounds formed are not absorbed in exact accordance with the laws of osmosis and diffusion. Just how they enter the circulation, the part played by the liver and their final utilization by the animal cell is not clear. Perhaps the amount in excess of the immediate needs is transformed and stored in the liver as glycogen while some is transformed and stored as fat.

The source of body fat is not necessarily obtained from the fat of the food ingested. If this were true, it would be wasteful to fatten pigs with corn. It is now generally accepted and in fact, has been actually proven that fats are formed from carbohydrates.

It is probable that the animal cell is surrounded by a liquid containing the soluble products of the carbohydrates, the proteins and the fats, and that the living cell obtains its nourishment from the food materials which have been transformed into products capable of being easily utilized by the economy of the cells.

EDITORIAL

THE HOMŒOPATHIC MEDICAL SOCIETY OF PENNSYLVANIA AND THE HAHNEMANNIAN MONTHLY.

AT the meeting of the Homœopathic Medical Society of the State of Pennsylvania, held in Williamsport in September last, the Trustees of the former were empowered to enter into a contract with THE HAHNEMANNIAN MONTHLY by reason of which the journal should become the exclusive medium of publication of the proceedings of the Society, and the two corporations should hereafter act as partners. The contract which has now been thoroughly considered by the Trustees, and signed by the officers of both corporations provides that hereafter all members of the Society, whether previous subscribers or not, shall receive the Hahnemannian for which the State Society will pay a stipulated sum per head. Subscribers of the Hahnemannian resident in Pennsylvania and not members of the Society will be expected to sign application blanks for membership in the Society, and on approval of the Board of Censors and vote of the Society will be admitted to membership without the payment of an initiation fee. In other words, one payment of three dollars will hereafter make Pennsylvania physicians members of the Society and subscribers to the Hahnemannian. The recommendation of remission of the initiation fee is to hold good for the 1911 session only. Arrangement has also been made for the admission of recent graduates of homœopathic colleges in order to bring our young men into the Society early in their careers.

Any profits accruing from the new business arrangement are to be divided equally between the Society and the active editor of the Hahnemannian. Any profits received by the State Society must be devoted to the promotion of the organization of homœopathy in Pennsylvania.

This new arrangement should prove to be a very good thing for the interests of our State organization. Already the Committee on Membership has secured, as a result, 175 applications for membership, and there are indications that before the

time of the meeting, the Board of Censors will have to pass upon over 300 applications for membership.

Of course, there is a possibility of the number of new members passing this large figure if those already enrolled on our list will make it a point to look up those physicians resident in their vicinity and do their best to secure their application.

Those who have already paid their subscriptions to *THE HAHNEMANNIAN MONTHLY* for 1911, will be credited upon the books of the State Society.

Those who have paid their State Society dues will receive the *Journal*, for which the Treasurer makes payment.

In other words, Pennsylvania physicians will hereafter receive for three dollars that for which they have hitherto paid six dollars. As we have said before, for 1911 only, the Trustees have recommended the admission of members without the payment of the usual initiation fee of two dollars.

Even though no work other than that already done shall be accomplished, the Homœopathic Medical Society of the State of Pennsylvania now stands as the largest and strongest of our organizations, the American Institute of Homœopathy excepted.

COMMENCEMENT AT "OLD HAHNEMANN."

THE Sixty-third Annual Commencement of the Hahnemann Medical College of Philadelphia marked the beginning of a new era in the history of that venerable institution. No one could have witnessed or have participated in the various exercises incident to the commencement week without becoming imbued with the feeling that "Old Hahnemann" has renewed her youth and is prepared to enter upon such a course of success and of progress as was dreamed of by that zealous band of homœopathic practitioners who laid her foundations more than sixty-three years ago and has been uppermost in the mind of every loyal alumnus ever since.

There were many circumstances that combined to bring about a renewal of zeal and a healthy spirit of optimism at this particular time. In the first place the events of the past year, the first under the administration of the new Dean, have proven beyond all question that the faculty of the

Hahnemann Medical College have selected as their administrative head a man who is pre-eminently fitted for the responsible and arduous position which he occupies. They have proven that of the sons that "Old Hahnemann" has reared and nourished there is one who has the ability, the energy and the willingness, at no little sacrifice to himself, to stand as a leader in the fight and to give the best of his time and thought for the advancement of her interests and for the good of homœopathy. To give a detailed account of the work of our Dean during the past year is not our present purpose. Those who desire further information on this point will find a partial statement of the work that has been accomplished in the Dean's report to the Alumni Association. It is sufficient for our purpose to say that in less than twelve months he has entirely remodeled the curriculum of the College, placing it on an equal with that of the most efficient and progressive medical schools in our country, he has secured a liberal endowment for the chair of Homœopathic Materia Medica that ensures the adequate teaching of this fundamental branch of homœopathy as long as Hahnemann College shall exist; he has secured donations for the construction and equipment of new laboratories and libraries, and more important than all has inspired in the entire corps of professors and teachers a sincere and determined purpose to work harmoniously and earnestly to promote the scientific knowledge of medicine and the efficiency of Hahnemann College and Hospital.

A subject which attracted much favorable comment on the part of the visiting alumni was the new curriculum of the College.

While changes have been made affecting every year of the college course it is in the junior and senior year that the most radical departures have been made. Didactic lectures and theoretical medicine have been placed in the back ground, to a large degree, and a great part of the student's time is devoted to practical work in the dispensary, laboratory, operating room and at the bedside. No one who has not had the opportunity of comparing the results attained by this method of instruction as compared with the old didactic method can appreciate the effect it has had in improving the scientific interest and the practical ability of both students and teachers. Under the old system a student could describe more or less accurately how a blood count was to be made or a remedy

selected, but set him at the bedside of a sick man and he was absolutely lacking in the ability to apply his "book learning." With the new method of "learning by doing" this is all changed and the student who has spent from three to five hours each day of his senior year at the bedside in the hospital taking histories, making physical and laboratory examinations, and applying the indicated homœopathic remedies under the supervision of competent instructors, has a fund of practical knowledge of medicine and of homœopathic therapeutics that is bound to advance him rapidly in his profession and to reflect great credit on his Alma Mater.

The new physical equipment of the college attracted general notice. The teaching of modern medicine is expensive. Laboratories are an expensive yet indispensable factor in carrying out the plan of practical instruction to which the College has committed itself. Many colleges, discouraged by this condition have voluntarily closed their doors during the past year. But not so at Hahnemann. Our indefatigable Dean has succeeded in enlisting the financial support of the friends of the College in this matter and Hahnemann has now one of the finest laboratories for clinical work in connection with ward teaching of any medical school in the United States. So, too, the laboratories of pathology, of physiology, etc., have been improved and enlarged so that they are fully equipped for the needs of modern teaching.

The last, and by no means the least important factor indicative of renewed interest and progress at "Old Hahnemann," was the universal feeling among the alumni that the time has come for every graduate who has the welfare of his Alma Mater at heart to actively and earnestly lend his support to the faculty in their effort to advance the interests of our school. As Dr. Ware expressed it in his address to the Alumni Association, "No matter how earnestly the faculty labor to provide facilities for the proper education of the students it is necessary for us, the members of the Alumni Association, to supplement their efforts by sending them students to educate." A number of speakers dwelt on this point and, indeed, the most notable feature of the alumni banquet was the spirit of optimism and of sincere desire on the part of all present to heartily co-operate with the Dean and with the Faculty of the College in the new era of progress upon which the College has entered.

The commencement of nineteen hundred and eleven is over.

Its incidents are past and many of them even now forgotten, but its inspiration will long be remembered and will, no doubt, have a farreaching effect upon the future welfare of the Hahnemann Medical College and Hospital.

—G. H. W.

COMMUNICATIONS

COMMUNICATION TO THE MEMBERS OF HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fellow Members:

OUR Annual Meeting this year will be held at Bedford Springs the first week of September. (Note particularly the change in time).

The Trustees have accepted the invitation extended by the Allegheny County Society, and their co-operation with the Bedford Springs Hotel Management assures us that we shall be royally cared for.

You are, doubtless, aware that Bedford Springs, not only for its historic interest, but for its natural scenery, is one of the most beautiful spots in the State of Pennsylvania. From the days of Washington to our own time it has been famous as a mountain resort.

In carrying out the instructions of the State Society, which voted last September at Williamsport to accept the proposition made by the HAHNEMANNIAN MONTHLY, the Trustees have been delayed by various details. We have finally concluded the arrangement with the Hahnemannian, which we believe will prove very advantageous to the State Society. It is not my purpose to discuss in detail the different phases of this agreement, as this subject will be treated fully in the HAHNEMANNIAN at an early date. Suffice it to say that the Society enjoys the same privileges with regard to the pages of the HAHNEMANNIAN as though they owned the Journal absolutely, without being financially responsible in any way other than to pay a flat rate of \$2.00 for every member of the State Society in good standing. It remains with the officers and members of the Society to demonstrate how much good will accrue from this arrangement.

As individual physicians it makes little difference to us

what kind of men graduate from our College, what legislation is passed, and what happens to our State Organization. Our professional future is assured. It is the Law of Similars we are fighting for. In this fight we should recognize that there are three forces that must act in conjunction if we hope for success, namely, the College, the Journal, and the State Organization. Probably the one best able to stand alone, as well as the most potent for good is the Journal. Recognizing this inter-dependence the Society voted to accept the HAHNEMANNIAN offer and the Trustees have entered into this agreement. If we spend our energy trying to make this proposition a success rather than trying to demonstrate why it will not succeed, the unification of our School is bound to result.

Fraternally yours,

WM. ALVAH STEWART, *President*.

THREE HUNDRED DOCTORS WANTED.

THE membership Committee of the Homœopathic Medical Society of the State of Pennsylvania are anxious to secure the names of three hundred doctors who are willing to affiliate themselves with the State Society at the coming meeting at Bedford Springs in September. We would urge every reader who is already a member of the State Society to make out a list of all homœopathic physicians in his community who are not members, send a copy of the names to the chairman of the Membership Committee and also have a personal interview with them for the purpose of getting them to fill in an application blank. The Committee proposes in the near future to send these blanks to every homœopathic physician in the State, and we trust you will make it a point to see that yours is returned with a name on it.

If you are not already a member of the State Society there is every reason why you should be. No state medical society offers more inducements to physicians to become associated with it than the Pennsylvania Homœopathic Medical Society. Its efforts to conserve the legal rights and standing of homœopathic practitioners is what has made it possible for you to practice homœopathic medicine to-day without obnoxious re-

strictions; its meetings are of an educational and scientific value of the highest order, and it furnishes to its members, free of extra charge, an up-to-date medical journal containing a complete copy of its transactions, in addition to a large amount of general medical literature. There are strong evidences of a reawakening among homœopathic interests in Pennsylvania all along the line. Already more applications for membership have been received by the Committee than the total number elected to membership last year. We need your help to make this the banner year for new members. Address all communications and applications to the Chairman of the Membership Committee, 37 South Nineteenth Street, Philadelphia.

RALPH BERNSTEIN, M. D., Chairman.

JOHN A. FISHER, M. D.,

C. W. SAMPLE, M. D.,

G. HARLAN WELLS, M. D.

DEAN'S REPORT.

(Presented before the Annual Meeting of the Alumni Association of the Hahnemann Medical College and Hospital of Philadelphia, June 1st, 1911.)

Fellow Alumni of Hahnemann:—

The past eleven months have, indeed, been busy ones, and this applies not to one individual in particular, but has extended all along the line. On the whole it may be safely said that Hahnemann has progressed and as this advance has been brought about by a number of factors, I trust you will bear with me while I outline some of the changes that have taken place since last July, as well as some proposed plans for the future.

First, the College and Hospital have been absolutely amalgamated, so that no suspicion of a proprietary institution can ever be thought of hereafter. The finances and business management of the entire corporation are now in the hands of our Board of Trustees, the teaching staff confining their activities to the educational side alone, just as the Hospital and Dispensary staff concern themselves purely with the medical and surgical work of the Institution.

Nearly four years ago the Trustees appointed an Executive Committee of experienced business men to run the Hos-

pital. These gentlemen found matters in a more or less chaotic condition, but, by rigid economy and business methods, they have built up our credit, have reduced our indebtedness, and, all in all, have so transformed Hahnemann Hospital that we hardly know the one of old.

This same Committee has been assigned, for the present at least, to manage the College end of our plant, and I cannot help feeling that before our last incoming class leaves us, Hahnemann College will have undergone a similar transformation.

Second, the endowment of Mr. Hering has opened the door for the *sine qua non* of success, or even of continued existence in an up-to-date medical school. This magnificent gift not only perpetuates the memory of Constantine Hering, but guarantees the teaching of Homœopathic Materia Medica and Therapeutics in our College for all time. The degree of "Doctor of Homœopathic Medicine" is thus protected and it is up to the patrons of homœopathy, who wish their children and grandchildren to be treated by homœopathic physicians trained from the ground up, in all that pertains to the art and science of modern medicine, to protect the degree of "Doctor of Medicine" by the necessary endowment.

The development of the Constantine Hering Laboratory of Pharmacology and Therapeutics was fully explained to you yesterday in a lecture by Dr. Nesbit and I shall, therefore, only add that it is slowly but surely opening up research facts and future possibilities which will be of incalculable benefit to the student, to the practitioner and to homœopathy in general.

Third, there have been some changes in the methods of teaching which seem to have worked out advantageously from a practical standpoint at least.

Through the courtesy of our Trustees the senior class have been admitted to the wards of our Hospital for bedside study and teaching. With a total capacity of 300 beds, from 150 to 200 of which are always available for these purposes, it can be readily seen that this plan has opened up a wealth of clinical material for our students, which it is hard to equal in any institution. The class is divided into three sections with ten week periods in medicine and therapeutics, in special and general surgery, and in obstetrics and the specialties, respectively. Every ward patient is assigned to two students who take the history, make the pathological findings, follow the case

with daily records, do redressings, assist at operations, anaesthetize, etc. This work is under the personal supervision of teachers from each department and is supplemented by the "Ward Walk" and Conference, where each group discusses the cases with the teacher and follows operations at close range.

To do this work properly it became necessary to have a clinical laboratory in close contact with our wards. Once more Mr. Hering came to the rescue and installed and equipped a perfect Laboratory in the Hospital. Here each senior student has his desk, with locker for microscope and reagents, his "Pathological Home," while in the same room are complete outfits for the examination of urine, blood, sputum, bacteria, etc.

The same plan has been followed in the Dispensary which has been thrown open to the junior as well as to the senior class. Here each individual examines and treats patients under the supervision of the teacher, while small groups work along lines corresponding to the ward classes and conferences in the hospital.

If time permitted, it would be a pleasure to describe to you in detail this work, as well as the recitation associated with laboratory exercises and the "around table" talks, together with the individual demonstrations of normal and pathological conditions as they have been worked out in laryngology and eye and ear, in physical diagnosis, in obstetrics and in surgery.

Another valuable innovation has been the Saturday Clinic in our associated hospitals, the Children's, St. Luke's and West Philadelphia Homœopathic. Here our senior class have an opportunity to see the practice and get the ideas of men outside the teachers' circle and the effect has been undoubtedly a broadening one.

The references to the changes in the methods of teaching would not be complete without mentioning Post Graduate work. For years we have been asked what we can do for our Alumni along these lines and several attempts have been made to inaugurate such work, but for one reason or another they have fallen through.

During the past year we have thoroughly tested the possibility of carrying on these courses along with the college and hospital work and without any advertising we have had the opportunity to give the same to several physicians who have

been good enough to advise us of their impressions. As will be seen from our announcement for the session of 1911-12, Hahnemann is now ready to give physicians practical, clinical, laboratory and didactic instruction at any time during the college term. The details of the work can be readily arranged by advising the Dean as to the exact subjects to be pursued and the periods are best arranged in five or ten week clinical, and fifteen week laboratory periods.

Fourth, in the college itself we cannot show such actually accomplished changes as in the hospital where we were fortunate in being able to take advantage of the years of labor by our earnest executive committee.

However, work is well under way to transform our "Library" into a modern reading or study room and working library for student and physician. One-third of the room will be occupied by two stories of steel book shacks, with glass floor between, librarian's desk and complete card index, all under the supervision of our veteran, Dr. Bradford. The remaining two-thirds of the room will be furnished with tables, comfortable chairs, good lighting, and a file of current periodicals. This has been made possible through subscriptions from our friends and our teachers.

Under the present library, in the basement, is the laboratory of pharmacy and we propose to use this room for the filing of those reference publications only occasionally called for, all properly indexed and of easy access. Thanks to Dr. Bradford's labors, the college possesses a complete file of every homœopathic journal and probably the work of every homœopathic author.

An attempt is being made, in connection with the Constantine Hering Laboratory, to bring together every manuscript and publication of our illustrious pioneer, together with the Paracelsus collection, to acquire which he toiled so many years. In this way the laboratory will not only do the work Hahnemann and Hering would have loved to see, but it will be as well a Hering Memorial Room.

Furthermore, the Trustees have voted to use an available fund for college improvements with which as a beginning we propose at once to transform "Lecture Room No. 2" into two floors.

The lower one will serve as a students' and a private laboratory of physiology which has been obliged in the past to "double up" with histology.

The upper floor will give us half again as much floor space for the Museum, that monument to over forty years of *hard labor* by our own and our dearly beloved, Rufus B. Weaver.

The present museum will also be cut into two floors, the useless "gallery" being added to the pathological plant of our indefatigable Sappington and his industrious crew, while the lower floor of the same will serve as the laboratory of pharmacy now in the basement.

We are hearing much of late about our *City Beautiful*, and it seems to me this is the psychological moment for us to fall in line to make our *College Beautiful*, and there are quite a number of other improvements which would materially add to the comfort of the students and increase the efficiency of our College halls.

To go a step further, our efforts to place our students in the proper quarters, both sanitary and moral, would be brought to an ideal culmination by the establishment of a Dormitory and Commons where the entire Hahnemann family could eat, sleep and study under the same roof.

Fifth, in admitting our students we have adhered strictly to the standard recently adopted by the Pennsylvania State Board of Education to insure reciprocity with New York and New Jersey, irrespective of the State the applicant came from, or in which he proposed to practice. All credentials concerning which there was a shadow of doubt have been submitted to the State Examiner for his approval before the student was accepted. The standard taken is that of the Central High School in this city, and, as this is above that of the average high and normal school, we were obliged to turn down two-thirds of our applicants last year. A number of these went to other institutions. This will be a hardship until the State can bring about a uniform school standard, but I believe that as soon as we are in a position to warrant it, we should adopt a standard of our own, over and above that of the State, in such particulars as will strengthen our course of study.

Among the students themselves a healthy sign has been the change in the college spirit, the state of mind of the student body. Outside and irrelevant activities have gradually eliminated themselves, and instead of athletic and class contests, rowdyism, etc., there is developing an increased interest in study and in laboratory and clinical work. Our student body

is too small for class or clique spirit and the men are beginning to realize that they must go out with a united front as members of the minority school.

It may interest the older Alumni to know that we are now striving to revive the system of quizzes which used to serve us so well, along the extra mural lines, so to speak, which are such strong features in some of our sister institutions. The old Hahnemannian Institute, which had gradually dwindled into a monthly social function, has been reorganized as a students' medical society, at the meetings of which live medical subjects are discussed with the co-operation of the teachers. This gives a common ground on which student and instructor can come together and get in touch.

I cannot close without paying my heartfelt tribute to the spirit and work of our teachers during the past year. I have followed the instruction at Hahnemann for over a generation, but never have I seen such industry, such self-sacrifice, such enthusiasm. When it was deemed expedient to make a uniform dispensary and teaching hour earlier in the day, every clinician was promptly on hand, even though his practice suffered. When it was found necessary to do the hospital work in the morning, there were volunteers in each department ready to change their office hours, or to cut out or shorten certain office hours, to fill the bill. Last summer some one asked me when we would have our new dispensary. My reply was, when we deserve it. To-day we deserve not only a new or enlarged dispensary, but also an endowment which will make our unselfish and devoted workers independent of the necessity for breadwinning.

In conclusion, fellow Alumni, I would say to you that there are those who criticize the institution, in some instances unjustly and in others justly, for no one knows our shortcomings better than we do. Let me ask you in all earnestness to give your Alma Mater the benefit of the doubt; not to judge her on the say-so of this one or that one; but come and look us over; get alongside of the men in harness, in action; watch them and question them and see whether, on the whole, Hahnemann does not stand for, nay, push and pull for uplifting the student and practitioner, the science and art of medicine, and above all the theory and practice of Homœopathy.

WILLIAM B. VAN LENNEP, M. D., *Dean*.

GLEANINGS

THE TREATMENT OF INOPERABLE CANCER WITH RADIOACTIVE FERMENTS.—Stecker and Falk (Berlin) have published an article in which the hypothetical considerations, based upon scientific evidence, made a strong appeal. They say the ferments of which we know that in the living organism they serve not only for building up of cells, but also have the power of splitting organic albumin compounds, which even after death exert their activity in that they liberate autolytic ferments in organs protected from decomposition, these ferments seem to be qualified to serve as effective weapons in the conflict against malignant growths. This is especially true of trypsin, which digests cancer cells in the test tube. The authors then discuss the qualities of the alpha, beta, gamma and X-rays as compared with those from radium, and from many investigations show that it is possible to make a compound from the charcoal of cocoanuts, selected because it has the absorbability of radioactive energy as compared with graphite and animal charcoal, in the proportion of 80 : 9 : 1. This vegetable charcoal subjected to radial activity or in combination with salts of radium, in conjunction with trypsin, is compounded to form a substance with which cases of inoperable cancer have been treated. In summarizing their article the authors say that in some cases of inoperable cancer an improvement or a regression may be induced by this ferment therapy. The favorable action of the ferment is increased by a union with radium. In the combined use of enzymatic and radioactive substances there is produced not only an added, but also a mutually increased action. The best adapted vehicle is vegetable charcoal, which in powdered form possesses the highest absorbing powers both for ferments and for the emanations from radium. This radio-ferment therapy in this practical form brings about a gradual, long continued enzymatic action, in addition to one of high potential emanations and ray effects.—*Monatssch. f. G.u. G.*, Vol. 32, 703.

THEODORE J. GRAMM, M. D

THE RELATION BETWEEN MYOMATA AND INTERNAL DISEASES.—Theilhaber says his experience and reading show that the relation between fibroid tumors and internal diseases, such as those of the heart and kidneys, and probably also diabetes is not a casual one. Although his operations for ovarian tumor, prolapse, and uterine carcinoma are more numerous than for myoma, yet in this group he has never seen sudden death while the patients were under observations or immediately after operation. Only twice has he seen thrombosis after operation, except for myoma. Pulmonary embolism only occurred once aside from those operated for myoma. Of the heart affections mostly found in association with myoma, muscular changes were mostly noted. As an explanation for this, there have been mentioned the pain and pressure of the tumor upon the

sympathetic plexus. While this may be true, the author has not met this cause among his cases. The growth of the tumor has been mentioned, but he points out that the body rapidly accommodates itself to the demands made upon it for the growth of the tumor; mechanically, of course, the tumor exerts its influence mainly by pressure upon the diaphragm and upon the chest contents, whereby breathing is impaired, oxidation of the blood diminished and the nutrition of the heart affected, all of which exert an influence upon the heart muscle. In some instances the tumor if large impairs digestion from pressure upon the abdominal organs. Menorrhagia and metrorrhagia if long continued may induce degeneration of the myocardium. In most of the cases, however, arteriosclerosis is the cause of the cardiac degeneration. Just how this condition exerts its influence is discussed at some length. In a smaller number of cases syphilis causes the heart degeneration.—*Monatsschr. f. G. u. G.*, Vol. 32, 455.

THEODORE J. GRAMM, M. D.

TUBAL INFLAMMATION AFTER INDUCED ABORTION.—Amersbach has found from an examination of a large number of cases that in normal pregnancy and labor there is no inflammatory irritation in the tubes. After dilatation of the cervix by means of laminaria tents during pregnancy even with the most careful asepsis, inflammation of the tubes occurs even in a large percentage of cases, which may advance to a pronounced purulent salpingitis and lymphangitis. In at least some of these cases this inflammation is caused by cocci responding to the Gram stain. This infection is generally not of a virulent nature, as the clinical course shows. In four cases of laminaria dilatation of non gravid uteri no changes were found in the tubes. Tubercle bacilli were excluded from the cases.—*Monatssch. f. G. u. G.*, Vol. 32, 444.

THEODORE J. GRAMM, M. D.

PERITONEAL TUBERCULOSIS TREATED BY LAPAROTOMY.—Heiman (Breslau) points out the advantage of this treatment since it was accidentally discovered by an error in diagnosis in a case operated for ovarian tumor where the peritoneum and the pelvic contents were found to be tubercular, and which made a good recovery contrary to expectation. Tubercle bacilli reach the abdominal cavity through the blood and lymph channels and by an infection by continuity from a focus in the neighboring organs. Liberation from an eroded vessel may bring about the infection, or it may pass along the lymph channels of the diaphragm, or proceed from a tubercular ulcer, or from infected uterine adnexa. All cases are of course not curable by laparotomy. All of 36 cases operated were much improved. Two years later no report was obtainable from eight of the patients, thirteen had died from various causes, and the remaining fifteen were well. The diagnosis often can only be probable. Occasionally rectal examination may reveal nodular masses high up. Thomayer has called attention to an increased tympanitic condition on the right side of the abdomen due to an inflammation of the mesentery whereby the intestines are drawn toward the right side of the abdomen. Heredity, emaciation and elevated temperature may aid. The tuberculin (old) reaction is of

the greatest importance, whereby diarrhœa and crampy pains were induced. The operation consisted in simple incision and release of the ascites. Irrigation is not advised, since König has shown better results when not used. Tubercular adnexa were not removed. Subsequent to operation the cases were treated by injections of old tuberculin.—*Zeitschr. f. G. u. G.*, Vol. 66, 515.

THEODORE J. GRAMM, M. D.

TUBERCULIN REACTION IN PREGNANCY.—Stern (Breslau) examined 118 pregnant women from the seventh to the tenth month, and found 65% with positive reaction to the cutaneous, and 14.5% positive to the conjunctival test. This startling result is explained by the supposition of latent foci of infection, or that formerly existing tuberculosis left a continued reaction to the tuberculin. However, in the pregnant cases examined the author found the per cent. of reaction fall to 28.3% at the tenth month, while the conjunctival reaction is quite negative. In the puerperium the percentage of reaction rapidly rises again. This diminished reaction during pregnancy is probably ascribable to a disappearance of tuberculosis antibodies, which probably explains the unfavorable effect of pregnancy upon tuberculosis. That pathologic conditions of non-tubercular character affect the reaction to tuberculin has been pointed out by Pirquet, who showed that the reaction is absent during the prodromal stage of measles. Brandenburg made the same observation in reference to scarlatina, and Krannhals concerning typhoid and recurrent fevers.—*Zeitssch. f. G. u. G.*, Vol. 66, 532.

THEODORE J. GRAMM, M. D.

THE ETIOLOGY OF HEMATOMA OF THE VULVA AND VAGINA.—Wimpfheimer says hematoma of the vulva and of the vagina may be caused by any severe, repeated increase of abdominal pressure as found during labor, associated with changed vessel walls. A pedicled form is that where the hemorrhage takes place into a rudimentary vaginal septum. The part which labor plays is in the increased pains, the stretching and traction on the vagina and the pressure of the fetal head. The presence of varices does not in itself seem to predispose to the formation of the thrombus. Primiparae are mostly affected. The danger is increased by obstetric intervention.—*Arch. f. Gyn.*, Vol. 92, 279.

THEODORE J. GRAMM, M. D.

IS MERCURY A SPECIFIC IN PULMONARY TUBERCULOSIS?—William N. Beggs, Denver, Col., thinks that a specific remedy should be applicable with successful results in all clinical types of the disease treated, and in all stages of the disease. The dosage must be adaptable to any degree of severity or rapidity of development of the disease, and no personal equation on the part of the physician should be necessary to effect a cure. He then proceeds to ask whether mercury in tuberculosis fulfills all these requirements. After reporting fourteen illustrative cases he formulates his conclusions. Mercury is in no sense specific for pulmonary tuberculosis. It is valuable in certain cases, especially when there has been a specific taint. In most cases improvement is subjective, with very slow improvement in the physical signs. When syphilis is not present its value is due to the tonic effects of the drug, its beneficial effect on digestion, or the psychic effort of the treatment.—*Medical Record*.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

RECENT VERIFICATIONS OF SYMPTOMATOLOGY.—By Benj. C. Woodbury, Jr., M. D., Portsmouth, N. H.—*Rhus Tox.*—Sciatica of more than twenty years' standing, for which morphia had been several times used. Pain extended from hip to ball of foot, left side, beginning about 2 P. M., lasting until night; worse in damp weather, but goes off after continued walking, and after lying down at night. When pain is very severe most amelioration is obtained by holding the foot in very hot water. No particular restlessness at night, as warmth of bed brings relief and sleep. Arsen. 200 did not benefit; mag. ph. 3x lessened its severity, but it would soon return; rhus tox 200th was then given with complete relief. Several months later a return of the trouble was again put right by the same remedy.

Ranunculus Bulb.—Intercostal neuralgia, following a bruise over ribs of right side; after bry., arn., and rhus tox., in low potencies had failed to remedy, ranunc. bulb, 3 x gave relief in twelve hours, and now three days since, there remains but a slight soreness on sudden false motion. The pain was knife-like, cutting off the breath, worse from any motion, inspiration, and it was absolutely impossible to lie down, slight cough with mucous expectoration.

Staphisagria.—Sebaceous cyst of many years' standing diminished two-thirds its size, after taking this remedy in the 4x potency, night and morning for one month—patient is now taking her second bottle. The growth was situated on the lower lid of the right eye, yellowish white in color, and the size of a large pea, without soreness or pain.

Caulophyllum (3x).—Agonizing after pains, with intense soreness of uterine and abdominal walls; hard grinding, coming on every ten or fifteen minutes, and lasting for the same length of time; entirely relieved after a single teaspoonful of this remedy in water. Complicating factors in this case were albuminuria with swelling of both feet to the knees, a systolic heart murmur, an old umbilical hernia, and a breech presentation with tedious labor.

Sanguinaria.—Cough aggravated by inspiration, talking at night; with flushing of face, loss of taste, even water tasting badly; after puls. phos.—sang. 3x removed speedily.

Podophyllum.—Chronic mucous colitis, with intense and constant tenesmus. Prolapsus recti during attack, which comes on every August, and lasts a long time; patient passes nothing but clear mucus, no blood; intense colicky pain before stool, which is aggravated by eating or drink-

ing; after stool, faintness. Podo. 200 three powders, one taken each evening, relieved all tenesmus; and no more stools, after the second day, when a single large plug of mucus was passed, with entire relief.

Hydrastis (3x).—Acute catarrhal colitis, relieved in two days, after five days of allopathic treatment. Stools were entirely painless, consisting of clear mucus, resembling sago; tongue clean, no tenesmus or thirst; has chronic catarrhal dropping in naso-pharynx, particularly when lying in bed, and goneeness of stomach since taking a light diet.

Magnesia Phos. (3x and 6x) has relieved all cases of gastralgia, when indicated by crampy pains relieved by bending over and by hot applications, with excessive flatulency in stomach. A case of ovarian neuralgia, several times diagnosed as appendicitis and quieted by morphia, yielded to a few doses of mag. ph. 3x, after arsen., coloc. and bell. had failed. Pains were crampy, coming and going suddenly, not particularly benefited by heat, but observation showed that the patient was inclined, though very restless, to bend the body toward the painful side in trying to obtain relief. A case of cardiac pain with excessive flatulency, diagnosed as angina pectoris, for which old school physicians had repeatedly given morphia, finds its complete similitum in this remedy in the 3x potency; a few doses, dry or in hot water, give immediate relief.

Allium Cepa is a friend many times annually in its speedy arrest of coryza with its well-known modalities—a good remedy with which to convince doubting nurses and allopathic physicians (sometimes) of the efficacy of a therapeutic law.

Staphylocin C. (Shedd).—Removed, after a brief period of aggravation, two cases of furunculosis; the one, following severe burns of both arms, hands and face from explosion of gasoline; the other, chronic, of two years' standing with anemia, in a child of about seven years.

Belladonna (3x, followed by sulphur 200th) has given most satisfactory results in a case of glaucoma of apparently rheumatic origin, which rhus tox. had seemed to greatly benefit in its acute manifestations.

Cimicifuga (3x, followed by lachesis 6x) has for the past six months given entire relief in a case of chronic headache of six years' standing, following hysterectomy. Pains occipital and on vertex, extending to cervical muscles, with flushings.

Silica Marina (3x) has proven itself of service in constipation, with inactivity of the rectum with receding stool (silica and nat. mur.).

Hyoscyamus (3x) has repeatedly magically relieved the short, dry, hacking cough from bronchitis or elongated uvula. Also coughs worse on first lying down at night.

Iris Versicolor (3x) has been very successful in cases of bilious headache, also in neuralgia following grippe, with the characteristic nausea, right sided pain and vomiting; it has also proven itself of speedy benefit in gastro-enteritis, vomiting with purging, headache and sour stomach, profuse painful stools, excoriating the anus.

Ambrosia.—Given in the tincture, ten drops in a little water during or after an attack of epistaxis, has been followed by complete removal of the difficulty. Ferr. ph., arnica and carbo veg. had been given.

Natrum Muriatricum (30th potency, in chronic headache).—Patient aged 80 years, a sufferer from chronic bronchitis; during her attacks has a

slow, intermitting pulse; begins on first waking in the morning, wears off as the day advances, or lasts two days and a night. This remedy has the past few months given relief from headaches after bry., phos., dig. and sang. had been given. Pulsatilla has in two other cases relieved the above urinary symptom in the 3x and 200th potencies respectively.

Crocus Sativa 200 relieved sensation as of something alive in the stomach and abdomen, following miscarriage.

Sabina 3x and 200th has relieved menorrhagia, with bright red flow, alternately dark, clotted or watery, accompanied by the characteristic pain from sacrum to pubes.

Dulcamara 3x rapidly removed a warty growth on two fingers in succession.

Symphoricarpos (2x) gave rapid relief in the vomiting of pregnancy at the second month. Ipecac temporarily relieved; sepia seemed indicated, but was not satisfactory in the 6x potency; nor did arsen. help any. The above remedy cleared up the whole condition in from two to three days. There had been constant vomiting for more than a week. Nausea more or less constant, slightly relieved after vomiting. The patient was of dark complexion, slight build. Thirst was intense, but water either cold or hot disagreed; there was loathing of all food, even the smell of food cooking (sepia, arsen. and colch).—Feb. *North American*.

TEN REMEDIES PRESCRIBED ON FOUR SYMPTOMS.—By H. L. Stambach, M. D., Santa Barbara, Cal.—*Anacardium*.—Forgetfulness and loss of memory; irresistible desire to swear; great desire for stool, but rectum seems powerless, paralyzed and plugged; "all gone" feeling when stomach is empty, ameliorated by eating and during digestion (reverse of Bry. and Nux).

Arum Triphyllum.—Constant picking at nose or lips until they bleed; corners of mouth sore, cracked and bleeding from profuse corroding saliva; bites nails until finger-tips bleed; refuses food and drink on account of sore aphthous ulcers in mouth and throat.

Ambra Grisea.—Violent, hoarse cough, in paroxysms, followed by empty eructations; aggravated by talking or reading aloud; evening without, morning with expectoration; whooping cough, but without crowing inspirations.

Ledum.—Rheumatism or gout if beginning in lower limbs and ascending; especially if from abuse of colchicum; pains worse from warmth; ameliorated only when placing feet in ice-cold water.

Colchicum.—Smell painfully acute; nausea and faintness from the odor of cooking food, especially fish, eggs or fat meat; aversion to food, loathing even the sight and still more the smell of it; abdomen immensely distended with gas, feeling as if it would burst.

Coffea.—Sleepless, wideawake condition, impossible to close eyes; physical excitement from mental exaltation; bad effects from sudden emotions or pleasurable surprises; weeping from delight or alternate laughing and weeping.

Rheum.—Child has sour smell of whole body even after washing or bathing; screaming of children with urging and sour stools; child im-

patient, desires many things, cries and dislikes even favorite playthings; after abuse of magnesia if stools are sour.

Secale.—Dry, senile gangrene, worse from external heat or covering; extremities icy cold, yet cannot bear to be covered; worse from cold air; large ecchymoses, blood blisters, often commencement of gangrene.

Stannum.—Pains of headache or neuralgia increase gradually to highest point, then gradually decline; feels like crying all the time, but crying aggravates; feels faint and weak, especially when going *down* stairs—can go up well enough; nausea and vomiting in the morning or from the odor of cooking food.

Stramonium.—Incessant and incoherent talking and laughing; praying, beseeching and entreating; desires light and company; imagines that she is double or lying crosswise.—*May Pacific Coast Journal Hom.*

MATERIA MEDICA KEYNOTES.—By Frederick Kopp, Greenwich, N. S. W.

Lobelia Inflata in *Fever and Ague*.—This remedy should be thought of in fever and ague when the chill comes on in the *middle of the day*, and is followed by heat and perspiration, lasting until the following morning. There is also a shuddering and sensation of heat in the daytime.

Lycopus Virginicus in *Hemoptysis*.—In the hemorrhage of the lungs, in phthisis pulmonalis, this is one of our best remedies, rivalling even our old friend, *Hamamelis Virginica*, in its effects. It has the property of quieting cough and irritation of the lungs, and the expectoration becomes checked.

Phosphide of Zinc in *Brain Fag*.—This remedy is of priceless value in the treatment of brain fag. It is indicated in those cases even where there is threatening paralysis of the cerebral functions and violent *periodic* headaches. It should be given in 3 grain doses of the 3x trituration three or four times a day. Its offensive taste and odor, however, unfortunately, are against its use by the majority of patients. In such cases it may be formed into pills by working the 3x or 2x trituration up with equal parts of pulverized *gum arabic* and *sac. lac*.

Santonine in *Chronic Cystitis*.—This remedy acts very promptly in chronic catarrh of the bladder, when given in ½ grain doses three times a day. The flow of urine is speedily increased in volume, and flows with ease. The sensitiveness and feeling of fullness in the bladder disappears, and a cure is generally effected in a few days. *Santonine* is also indicated in *scanty urine*, with *brickdust sediment*; in cases of *milky urine*, and in *wetting of the bed at night*. "A few drops voided each time" is a prominent symptom.

Arsenicum Iodatum in *Affections of the Nose*.—*Iodide of Arsenic* is a valuable remedy in the 3x tincture or trituration when scabs form in the nostrils, and there is rawness and sensitiveness of the parts. It is useful either in chronic or acute catarrh, where the nasal passages and frontal sinuses are inflamed and in a state of ulceration. It should not be forgotten also that it is the best remedy we at present possess for the diarrhœa of phthisis pulmonalis.

Lilium Tigrinum in *Leucorrhœa*.—*Lilium Tigrinum* is indicated when the discharge is thin and acrid, staining the linen *brown*. There are severe bearing-down pains in the uterine region, followed by severe labor-like pains. The discharge becomes still more acrid and excoriating, and

often causes a rash-like eruption and swelling of the labia. It is also homœopathic to the bright *yellow* leucorrhœa, with scanty menstruation. This form of leucorrhœa is also of a very excoriating nature.

Trillium Pendulosum in *Phthisis Pulmonalis*.—This remedy is indicated where the expectoration is *copious, purulent, and tinged with blood*. The cough, at the same time is very troublesome.

Sanguinaria Canadensis in *Pneumonia*.—It is indicated in *Pneumonia* when there is extreme dyspnœa; the breathing is short, hastened and constricted, speech is difficult, and the expectoration assumes a tenacious nature, *rusty-colored*, and is brought up with great difficulty. It is useful in pneumonia in the second and third stages, when there is dullness on percussion, bronchial respiration, and red or gray hepatization. Again, in typhoid pneumonia, where the pulse is vibrating, easily compressed and soft, and the breathing very difficult. In chronic pneumonia it is one of the best remedies.

Respiratory Symptoms of Solanum Nigrum.—Amongst the symptoms of *Solanum nigrum* is a constrictive feeling of the chest, accompanied with a difficulty in breathing. There is a constant tickling in the throat, inducing a frequent cough. The expectoration is of a *thick yellow* character. There is a pain in the *left* chest, of a *beating* nature, accompanied with soreness to the touch.

Cistus Canadensis in *Hemorrhage from the Lungs*.—This is a useful remedy in cases of bleeding from the lungs, where the patient has a scrofulous taint. It acts well, when taken alternately with *Phosphorus*, every two or three hours in 3 minim doses of either the tincture or the 1x dilution of the former and 1x or 2x of the latter. After the symptoms have abated, it should be continued with 3 minim doses of the tincture, two or three times a day for at least another four or five weeks.

Oleum Santalum in *Gonorrhœa*.—It is one of the best and most effectual remedies we possess for this complaint, and is indicated when the discharge is *profuse*, of a *yellow or green color, thick and painless*. It is best given in from 10 to 15 grain doses of the 1x trituration three hours. It is best, however, to precede its use with *Gelsemium sempervirens* and *Cannabis sativus*, so as first to reduce the inflammation.

Lobelia Inflata, its *Mouth Symptoms*.—These are: a *mercurial* taste in the mouth, and a profuse flow of saliva, of a clammy nature; mucus of a tenacious character in the mouth. The mouth itself also is dry, and the tongue white-coated.

Lobelia Cerulea, its *Chest Symptoms*.—The chest symptoms are: a great oppression in the lower part of the chest, as if the air did not reach the lungs there; this is a prominent symptom of this drug. The cough is extremely troublesome day and night, and of a dry, hacking nature. The breathing also is very difficult.

Lobelia Cardinalis in *Pleurisy*.—*Lobelia Cardinalis* is indicated when there is great oppression in breathing, and the patient complains of pains in the chest of a *sticking* character, on taking a long breath. Intermitting, pricking pains in the *left* lung, occurring during the daytime, promptly yield to this remedy.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

PUBLIC HYGIENE AND INFINITESIMALS.—“*Persistent presence of lead and arsenic in fruits treated with the arsenate of lead.*”—As a result of an inquiry ordered by the Academy of Medicine of Paris in the agricultural districts of the country, trials were made with the arsenical paps used as insecticides, and principally to determine if fruits treated with them retain or not harmful amounts of arsenic. To arrive at a conclusion on this important question, Mr. Brioux, Director of the Agricultural Station of the *Saine-Inferiore*, undertook the following experiments:

Three apple trees, two for applecider and one for table fruit, were treated twice with a *bouillie* (pap) composed as follows:

Water	100 litres
Anhydrous Arsenate of Soda.....	100 gr.
Crystallized Acetate of Lead.....	.600 gr.

The first treatment was made on the 8th of June, when the petals of the flowers commenced to fall; the second, on the 29th, when the fruit for cider obtained the size of a hazel-nut, and the third tree about the size of a walnut.

The previous deductions of the fruits, in view of the analysis, were graded from the 22nd of June to the end of September. It should be noted that rains were abundant in June and July and consequently the fruits were liberally washed.

The dose found decreased gradually. In July two-thirds of the lead and arsenic supplied by the *bouillie* was carried away by the rain. At the end of September only infinitesimal doses were found.

As a result of these researches Mr. Brioux declares that the insecticidal *bouillies* of arsenate of lead are quite adherent, and allow to persist on the fruits appreciable doses of lead and arsenic to the end of July, which are very toxic, but at the time of the gathering, starting from September, the doses of arsenic found in each kilogramme of fruit became infinitesimal, up to the hundredths of milligrammes.

At the very time of the preparation of the cider the almost totality of the lead and arsenic remained in the *residuum*. Only imponderable doses of the insecticide were found in the cider. (*Normandie medicale*, 15 April, 1911.)

On the other hand, L. Moreau and E. Vinet have demonstrated to the Academy of Sciences (18 April, 1911) that although arsenate of lead is found in the grapes at the moment of the vintage, none is discovered in the wine. They have also investigated in what proportion is the arsenate of lead eliminated in the *residuum*, in the *ooze*, and in the dregs, and they have arrived at the following conclusions:

The amounts of arsenate of lead brought forward by the vintage come from vines treated while the flowers were still very weak, and besides, taking into consideration the very strong elimination of the product, dur-

ing the processes of pressing and vinification, we should not expect to find in the wines of these vintages more than, at the most, feeble traces of arsenate of lead. Practically these traces, when they are present, are most frequently of the class of those found in wines derived from vines which have never received arsenical treatment. Under these conditions the wines of vines treated before blossom seem to offer no danger in their consumption. It would be perhaps otherwise if the vines were treated tardily after blossom.

Let us add that Armand Gautier has made the most positive reserves on the subject of these conclusions. (*Le Bulletin Medical*, Ap. 29, 1911.)

AVIATION AND ITS TROUBLES.—Both Dr. Moulinier and Dr. Rene Cruchet had the opportunity, during the week of aviation at Bordeaux (11-18 Sept., 1910), to interrogate the leading aviators congregated there to compete for altitude and to ascertain their blood pressure after several ascensions.

On *rising*, the most notable symptoms were: dyspnœa, tachycardia, slight malaise, hypoacusis, ringing in the ears, violent headache, imperative urging to urinate, and unanticipated intolerance of the cold. These various phenomena put in mind, pretty exactly, the syndrome of *mountain sickness*, with this difference that here they appear at a smaller elevation (from 700 to 800 metres, and even 400 to 500 metres in the beginners).

On the *descent* the phenomena are again: tachycardia, palpitations, difficult breathing, buzzing and whizzing in the ears, and desire to urinate, which increases as the aviator approaches the ground. But the prevailing troubles are: violent headache, a sensation of burning and smarting over the whole congested face, and an invariable inclination to sleep, which at times compels the aviator to close the eyes, notwithstanding his efforts to keep them open.

On *landing* the series of phenomena complained of comprise: buzzing and hissing in the ears, violent headache and inclination to sleep, which still persist, and in addition there are: vertigo, a sort of torpor and muscular debility, and cyanosis of the extremities. Finally the pulse is more rapid than at the start, and, above all, the blood pressure, measured at the radial, is distinctly superior to the one existing before the ascent.

These variations in the blood pressure seem to be explained by the fact that the organism, while descending to the ground in 4, 5 or 7 minutes, after having reached an altitude of 1,000 metres, 2,000 metres, or 3,000 metres in 20, 30 or 40 minutes, has not the time to adapt its circulatory system to the variable pressures the aeroplane has to cross in a very short time.

Dr. Cruchet, as well as Dr. Moulinier, have been impressed by the persistence and importance of the variations of the arterial pressure, particularly observed after rapid ascents and descents from high altitudes, while rises to middle elevations by trained individuals are not attended by this class of reactions. The capital point, however, to remember is that *air sickness* reaches its maximum on the descent.

Dr. Cruchet, especially, accounts for this by the fact that aviators usually descend in 5 or 10 minutes from heights to which they took nearly ten times that period to ascend. The *physiological disorders*, then, in-

crease as the aviator nears the ground. They comprise, in general, vasomotor reactions with hypertension, vertigo, violent headache, and somnolence consecutive to ascensions, chiefly on the ground and some time after landing. Such are the phenomena which distinguish air sickness from mountain sickness and which give a peculiar aspect to the troubles whose essential cause, very probably, is the rapidity with which the aviator crosses the space. (*Le Bulletin Medical*, 3 Mai., 1911.)

ASSOCIATION OF MEASLES WITH SCARLATINA.—Prof. Hutinel, in the *Paris Medical* of January 28, 1911, makes the following assertions:

The simultaneous evolution of these two specific diseases has been considered doubtful for a long time, but to-day there is no physician who can deny the association of measles and scarlatina.

Both diseases can be simultaneously contracted. Most commonly we see the two pyrexias succeed each other at notable intervals, one of them being communicated to the child during the evolution or the convalescence of the other. This eminent authority seriously considers the consequences the diverse combinations of the trouble may produce.

1. In those cases where measles precedes scarlatina the prognosis is less formidable. Scarlatina then develops with absolute regularity and gets well without accidents even when the intervals between the appearance of the two maladies are very short, and better still when convalescence is already advanced.

This opinion is not universally accepted, but the contradictory facts are only observed when the primary infection presents naso-pharyngeal and especially pulmonary complications. Scarlatina can then rekindle and aggravate these accidents, but they are less imputable to measles itself than to the secondary infection.

2. When measles and scarlatina appear simultaneously, the two diseases have not been contracted together; but their rashes occurring at the same time, at a few hours' interval, bring about a kind of mixed disease, whose distinction is not always easy, but of which there are convincing examples.

One may think, *a priori*, that the results of this association must be terrible; in fact, all cases do not have a favorable course, but as a rule they are very mild. To explain this relative benignity one may suppose there did not exist any anterior nasopharyngeal infection in the patients which got well. Measles develops then before scarlatina had the time to exalt the virulence of the streptococcus contained in the pharynx. Hutinel sees, in the rarity of the broncho-pulmonary complications in cases of this kind, a pleading argument against the common streptococcic nature of scarlatina.

THE HAHNEMANNIAN MONTHLY.

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THE TREATMENT OF UTERINE FIBROMA BY THE ROENTGEN RAY.

BY

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THE treatment of Uterine Fibroids by other than surgical methods was first presented to the profession by Apostoli in an article to the French Academy in 1882. It at once aroused the attention and invited the thought of the medical profession, and the brilliant investigations of Apostoli, Barthalaw, Massey, Englemann and many others, have enriched the literature of Uterine fibromata until it has assumed massive proportions.

To check the metrorrhagia, destroy the mucous membrane and bring about a healthy repair process, an internal platinum electrode attached to the positive pole of the continuous current and an abdominal negative electrode of large surface, with a continuous current of sixty to seventy milliamperes is used, applications five to fifteen minutes, once or twice weekly.

Where hæmorrhage is not a prominent symptom or after it has been controlled, conditions should be reversed to hasten absorption. As a palliative treatment in inoperable cases and as a means of controlling the metrorrhagia, this method is undoubtedly efficacious. The general state of the health is improved in a majority of the cases, the pain relieved, but the decrease in the size of the tumor is observed in only a small proportion of the cases.

The well-known effect of the menopause upon uterine fibroma has led electro-therapeutists to test the action of the Roentgen Ray in the treatment of this intractable disease. The effect of Roentgen irradiation of the ovaries is to produce an atrophy of the Graafian follicles, thus producing an artificial menopause. The nearer the woman is to the climacteric age, the more easily and permanently is this condition brought about.

The effect of this artificial menopause is a diminution of the size of the tumor and the arrest of the haemorrhage. This result is due not only to the ovarian atrophy but in certain cases there is a direct action upon the tissues of the myoma itself. In the Roentgen treatment of myoma, the anatomical condition of the tumor plays an important part. The intra-mural variety yields best to the X-Rays as well as the multiple tumors. In the submucous variety there is danger of haemorrhage, especially at the commencement of the treatment. In these cases the Apostoli method of treatment should be first resorted to until all danger of exciting a fatal haemorrhage has passed.

The results thus far obtained in the treatment of Uterine Fibroma by the Roentgen Ray warrants the belief that it offers more in permanent results than any method hitherto proposed outside of surgery.

Krause of Bonn reports that in seven cases of Myoma treated by the Roentgen Rays, four had been greatly diminished, and that in ten cases of Dysmenorrhoea, eight had derived material benefit from Roentgen irradiation. Haenisch of Hamburg had only one failure in nine cases of Myoma thus treated. This was a patient 35 years of age with sub-mucous myoma. The average duration of treatment was from 80 to 380 minutes. Other operators report similar results. We have been using the method only about a year and the results thus far are all that could be desired. We have several cases under treatment and they are all improving, the tumors are lessening in size, haemorrhages have ceased and all concomitant symptoms rapidly disappearing.

While our observations are not very abundant as yet, still we are able to draw some very definite conclusions as to the comparative indications for surgical and Roentgen treatment.

In all cases where surgical treatment is contra-indicated, because of immediate danger to life; as haemorrhage of severe

character, affections of the heart, etc.; Roentgen treatment should be resorted to.

The mortality of from four to six per cent. in cases treated surgically is still too high when you consider that this is a disease that is not immediately fatal.

For healthy individuals the operative treatment which involves very little danger and in the poorer class of cases where it is essential that they get back to work as soon as possible, offers the quickest results.

In well-to-do patients who dread the knife, Roentgen treatment, while taking more time and being somewhat more expensive, will accomplish all that is desired.

Roentgen Therapy in gynecology is pronouncing astonishing results and is destined to play a very important role in the treatment of many diseases peculiar to women.

Various theories have been promulgated in order to account for the curative effects of the X-Rays. The consensus of opinion seems to be drifting towards the hypothesis of Electro or Radio vaccination as in this way only can much of the phenomena be explained.

Many diseases of totally different nature and origin improve under its action; eczema, psoriasis, lupus, glandular enlargements which have existed for years disappear under the rays. Irradiation in one region is frequently followed by improvement in another region. High Frequency Effluve applied to a crop of boils would apparently render the patient immune to further inoculation. Erythemosis of one region was influenced by X-Ray treatment of an adjacent part and even wide-spread carcinoma of the breast was influenced by irradiation of only a portion of the affected area.

In the words of the "Autocrat of the Breakfast Table," "If any one would only contrive some kind of law that one could thrust among the works of this horrid Automaton and check them or alter their rates of going, what would the world give for the discovery?"

**THE RECENT DISCOVERIES IN THE DIAGNOSIS AND TREATMENT OF
SYPHILIS AND THEIR RELATIONSHIP TO NERVOUS
AND MENTAL DISEASES.**

BY

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PRINCE MORROW states in his treatise entitled, *Social Diseases and Marriage*: "It is generally considered that syphilis is the most common etiological factor in diseases of the nervous system." This being true the discoveries made in recent years in bacteriology, serodiagnosis, and therapeutics especially bearing upon this protean disease are epoch-making. When in 1905 Schaudinn and Hoffman read their report on the spirochaete pallida, and in 1906 Wassermann published his serodiagnostic investigations, and in 1910 Ehrlich announced the dioxydiamidoarsenobenzol treatment of syphilis a new light was thrown upon many of the problems of neuriatry and psychiatry.

If we can make a positive diagnosis of syphilis in its incipency and institute a treatment that will absolutely control it, these two important branches of medical science will be revolutionized. It is too early to make any prognostication of value bearing on the ultimate results these measures will produce but a brief consideration of the subject may be of interest. Quite enough evidence is at hand to entitle us to regard the spirochaete pallida as the etiological factor in syphilis. Osler and Churchman state, "Experts are almost unanimous in regarding the specificity of this organism as a 'probability bordering on certainty.'"

In diagnosing syphilis in times past we relied upon the disappearance of the objective symptoms but now through the use of the Wassermann reaction and its modification by Noguchi we do not have to do so. Even after the external signs of the disease disappear we can get evidence as to internal conditions through the employment of this test. It has been found positive in a large number of cases of syphilis of all kinds as to render it extremely valuable as a means of diagnosis in doubtful cases and in obscure lesions it may be said to be indispensable. So-called latent syphilis now can be positively diagnosed.

Writing recently on the Wassermann test Gottheil states,

"It seems fairly well established that we have at last not only a definite index as to the existence of syphilis when the ordinary physical signs are absent or indeterminate but also a test to determine the sufficiency and the efficacy of the treatment and to decide upon the patient's future and course of life he ought to pursue." Of the two procedures above-mentioned, authorities state that the Wassermann method is more reliable than the Noguchi but the latter has the advantage of being more convenient for bedside use, has increased promptness, a greater delicacy of process and requires less blood to be drawn which is an important attribute. As to the application of the test, it is generally recommended that at present it should not be made by the general practitioner but only in especially equipped laboratories and by experts, as the technique is complicated and if one is not adept the value of the result is in doubt.

To sum up: By means of these two procedures, the bacteriological method and the Wassermann test, it is now possible to diagnose more certainly in the inception of the disease and to establish treatment at an earlier period than in the old days. To be able to make an early positive diagnosis of a suspicious lesion means a great deal to the patient, both as to his future health and subsequent course of life.

To turn to a consideration of Ehrlich's crowning discovery. He proposes to destroy the germs of syphilis, a disease that if not treated would last during the entire life of the individual and be conveyed to his descendants, with a single dose of the remedy he has dominated "606," or salvarsan, as it is now called. From the extensive experiments already made we have enough data to prove the principal points of his theory. The last word has not been said, it is true, and the claims of some too enthusiastic investigators may be exaggerated; but we do know that the injection of a single dose of salvarsan has caused all visible signs of syphilis to disappear.

Under this treatment the spirochaete pallida disappear from the lesions both primary and secondary in from twenty-four hours to seven days and the Wassermann reaction changes from positive to negative in from twelve days to seven weeks. There are limitations at present to the use of the treatment. Ehrlich advises certain precautions in such conditions as, diseases of the optic nerves, advanced diseases of

the heart and kidneys, tuberculosis, old age or cachexia from any cause, and in diseases of the brain, even if of syphilitic origin. There have been some cases of blindness occurring subsequently to the administration of the remedy; but this may have been due to not following the discoverer's exact directions.

In the treatment of the remote effects of syphilis little has been found out as yet that is of value. Alt has studied the effects of "606" upon cases of locomotor ataxia, paralysis, and epilepsy of known leutic causation with gratifying results. In general paralysis of the insane no results have been obtained as yet, according to a recent article by Wechselsmann in the *New York Medical Journal*. Along with the above but of less importance may be mentioned Metchnikoff's experiments in the prevention of syphilitic systemic infection in cases exposed to the contagion. He believes there is a possibility of cutting short an implanted infection by the use of the local application of a 33 per cent. calomel ointment. Several observers have noted good results.

Syphilis acts upon the central nervous system in two directions: (1) by means of the syphilitic toxins and their indirect products; (2) through lesions of the blood vessels and lymphatics. It attacks principally the membranes of the spinal cord, the brain, and the blood-vessels of these organs.

The following are the nervous and mental diseases of recognized leutic origin: Lesions attacking the cerebro-spinal axis—meningitis, cerebritis, arteritis, (apoplexy under forty years), neuritis, meningomyelitis, myelitis, spinal paraplegias (Erb type), syphilitic insanity (mania and melancholia), pseudo-paresis, and syphilitic dementia. Post-syphilitic degenerative processes or so-called parasymphilitic diseases: Acquired—tabes dorsalis, general paresis, neurasthenia (syphilophobia), hysteria, epilepsy, neuralgia; hereditary—Little's disease, juvenile tabes and paresis, infantilism, hydrocephalus, cerebral and spinal agenesis, amaurotic family idiocy (Tay-Sachs), syphilitic amentia, imbecility, and feeble-mindedness.

If syphilis can be gradually eliminated or even controlled to the extent that at present is suggested through the use of the above-mentioned aids this vast array of symptoms will be made less formidable and in time many may disappear.

Of the diseases enumerated let us consider general paresis.

It is now quite generally conceded that general paresis is caused by syphilis. The Wassermann reaction is said to have practically removed all doubt as to the relationship between this psychosis and syphilis. According to Noguchi in general paresis, from 80 to 100 per cent. of the cases are positive and in tabes from 40 to 80 per cent. are positive.

As to the prevalence of general paresis take the statistics of New York State alone. During the year ending September 30th, 1910, the number of patients with general paresis admitted to the state hospitals for the insane of this state was 600 men or 17.4 per cent. of all men admitted, and 263 women or 7.1 per cent. of all women admitted. Now, if we add to this number the quota of the other states we have a total that is important. The patient who develops paresis is usually a capable, successful, and valuable individual. The duration of life after the onset of the disease averages three and a half years. So far medical science knows no cure for this dread malady. The patient slowly and surely degenerates mentally and physically until death kindly steps in. If it is possible to suppress syphilis probably all of these lives now lost by paresis will be saved to the community.

Locomotor ataxia, too, claims very many victims. Think of the suffering, misery, loss of usefulness, etc., that this disease entails and that under the most favorable circumstances ultimate recovery is impossible and then consider what the control and the possible suppression of syphilis would mean. If we can annihilate the spirochaete pallida, in the years to come locomotor ataxia and general paresis will be less common and eventually they may be as rare as smallpox is now.

The hereditary conditions induced by syphilis will be lessened and perhaps gradually obliterated. The defective class will be reduced by the unfit such as imbeciles, idiots, feeble-minded, and hydrocephalic due to this disease becoming in the remote future non-existent. The economic gain will be great to say nothing of the increased amount of happiness produced.

Considering the vast amount of damage done by syphilis to the present generation and the influence of this upon future generations the value of these discoveries assumes an immense importance especially in view of the far-reaching potentialities that will be exerted through their agency. The foregoing predictions may seem somewhat visionary and too optimistic but they are at least not outside of the realm of possibility.

Transactions of the Homoeopathic Medical Society of the State of Pennsylvania

BUREAU OF HOMOEOPATHIC INSTITUTES AND CLINICAL
MEDICINE

G. MORRIS GOLDEN, M. D., Chairman

A STUDY IN PSYCHOLOGY.

CHARACTER FORMING VIEWED IN ITS VARIOUS PHASES AND ITS
APPLICATION TO THE PRACTICE OF MEDICINE.

BY

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OF all the branches of medicine, none is more important than, and none less scientifically followed up, than is psychology. The great majority, but happily not all of the medical men and women, are satisfied with broad generalities, seldom even taking time to consider specifically and in detail many very interesting, instructive, and even important psychological occurrences and conditions in their daily regular or special practice. Many a poor person is put down as a crank, melancholic, or even a fool; when a little closer study in detail would reveal the cause of, and thus at least bring us a step nearer to the cure of certain nervous disorders and reflex cases, and throw a light of better understanding upon those cases already cured or relieved.

Psychological studies are not outside of the realm of the exact sciences, but their fruits can be demonstrated with as much accuracy as our best-tested scientific theories. If the conclusions drawn concerning some of these theories are not correct, they stand the tests as if they were true, and that is as far as finite man can judge. You cannot demonstrate in chemistry that an atom exists, yet that science is founded in a great measure upon the atomic theory.

To quote Hudson, "It is equally impossible to demonstrate the abstract correctness of the atomic theory, and the evidence found in uniform results is all that is possible to one

who would give a reason for the faith that is in him. No one ever saw, felt, tasted or smelt an atom. It is beyond the reach of the senses; nor is it at all probable that science or skill will ever be able to furnish instrumental aid capable of enabling man to take cognizance of the ultimate unit of matter. It exists for man only in hypothesis. Nevertheless the fact remains, that in all the wide range of human investigation there is not a more magnificent generalization, nor one more useful to mankind in its practical results, than the atomic theory.

Yet there are those who doubt its abstract correctness and labor to disprove the existence of the atom, or to seize it and harness it to the uses of mankind, it might be well to set the chemical fraternity right by demonstrating its non-existence. If the practice of chemistry on the basis of the atomic theory were defective in its practical results, or failed in the universal application, it would then be the duty of the scientists to discard it entirely, and seek a better working hypothesis.

The most that can be said of any scientific hypothesis is, that whether true in the abstract or not, everything happens just as though it were true. When this test of universality is applied, when no known fact remains that is unexplained by it, the world is justified in assuming it to be true and in deducting from it even the most momentous conclusions." No matter whether it be a specialist or a general practitioner, surgeon or medical man, he is confronted by some mental condition, either normal or abnormal, and this condition will have some bearing upon the welfare of the case. Some facts are well understood while others are not so well known or so readily grasped, for the very reason that the medical fraternity has not had the claims of the importance of psychology sufficiently dwelt upon.

It is with the idea of presenting some theories that cannot be disproven, although not proven except by repetition of apparent cause and effect, that this paper is written, with the hope that it will be to the real benefit to some, if not all, of us. If some of the theories be incorrect, it is your duty to disprove them, and if they are not disproven, let them stand as the best we have up to the present, and the future will do the rest. Medical men have emphasized the importance of proper bodily care from infancy up so as to be able to produce a healthy individual.

The nervous system is a part of the body and is also the cause very often of some bodily degeneration. The proper study of the nervous mechanism cannot be carried on unless the science of psychology is thoroughly studied. Therefore it is a physician's duty to study the influences concerning and surrounding this most delicate part of the body, both before and after birth, as well as to do the same concerning other organs of the body. A healthy mind and body should go hand-in-hand.

The first thing a physician should always do before prescribing for a case is to study the character or type of the patient. This we do, almost unconsciously, not taking the time or trouble to study him or her very deeply. However this is very wrong, and every opportunity for character and type study should be seized upon, if not for the benefit of the case, for the welfare of others. From whence comes this type of individual? What are the underlying causes of his or her personality? What effect will the character have upon disease, offspring, wife, or husband, or associates? What are the applications to the practice of medicine? These are all pertinent questions and will be discussed in this paper.

For convenience we will divide the subject into the discussion of the following topics:

1. The underlying causes of personality.
2. Effect of character upon disease.
3. Application of the subject of character formation to the practice of medicine.

1. What are the underlying causes of personality?

This subject is such a broad or inclusive one that it must be further divided into topics, namely:—

- (a). The possession of a soul.
- (b). The possession of a separate soul.
- (c). The protoplasmic influence upon the personality.
- (a). *The Possession of a Soul.*

To have a personality an object must have life and a mode of expressing life independently of any other object having life; and therefore must have something more than a bodily nature as a bodily nature is generally conceived of. Life cannot die or it would not be life, so for convenience we will call the life the soul, for without it we are dead. Philosophers have searched so long for a connection between mind and body that they have almost ceased to seek an explanation.

There are three great theories which prevail, parallelism, interactionism and automatism. The theory of parallelism is that a stream of consciousness flows side-by-side with the brain processes, yet the corresponding points not being exactly opposite the mental states, the mental states always being somewhat later than the brain events that cause them.

The theory of interactionism is that the causal influences are here considered to run in both directions, in sensation from the body to the mind, and volition from the mind to the body.

The theory of automatism is that the influences are considered as flowing in one direction only—always from the body to the mind. The brain is not the mind, it is the servant of the mind, and by contact directly or indirectly with every portion of the so-called physical body, causes action of some sort. The only real life that exists is the mind, otherwise known as the soul or spirit, and if it really exists, it must occupy space, and occupying space, it must be in some sense material. Therefore, the just conclusion to arrive at is that the soul is actual matter; but because of inadequate means, we are unable to detect of what kind. Being matter, it acts upon the rest of the physical world in the same manner that the rest of the body does, and that departing from the body (being the only real life) the purely chemical, though organic, body is dead. Therefore, we possess a soul, and the soul is real.

(b). *The Possession of a Separate Soul.*

Having concluded that we have a soul, we must conceive that we have a separate soul or body or we could not have separate life and impulses, so we will next consider the topic of the possession of a separate soul.

As above stated, we have admitted that there must be a soul for life, and in consequence a separate soul for a separate or individual expression of life in its various forms. We will, for convenience, consider the soul as the mind, just as we consider man with his physical and metaphysical make-up as man.

The mind of man is of a dual nature, subjective and objective. The objective mind notices and comprehends the objective world by means of the five physical senses, sight, hearing, tasting, smelling and feeling. It is dependent upon earthly influences, and does not exist as life, but as the result of life. The objective mind can be educated and trained. It will struggle with its environments, and its highest developed

power is that of reasoning. The objective mind requires training and guidance. The subjective mind is life and perceives by intuition. It is the seat of the emotions, and the storehouse of the memory. It is apparently a separate entity, and can exist outside of the body, and, therefore, can more properly be called the soul.

The subjective mind can be and is controlled by the objective mind of the same individual as well as by that of another person exerting power over him. This is seen in hypnosis. An unwilling subject cannot be hypnotized. If a person does resist the power of an outside will, he can exert his own will to such a degree as to absolutely govern himself and his desires for good or evil by means of his objective will, and as the objective will gains power by training, education, and reasoning, every effort should be made to train it in the proper direction so that its control over the subjective mind will be for the good of the latter, or the soul.

Thus the actions and the thoughts of the objective mind will affect the subjective mind of the offspring, and as the subjective mind governs the emotions, and has the power of memory retention, the material or so-called body-life of the offspring will be affected by the mental condition of the parent, unless, perchance the objective mind of the offspring be stronger than the subjective, which is possible but not probable. If the objective mind has reasoned out and definitely come to a conclusion concerning a certain subject, it cannot be controlled, even in a hypnotic state, (thus if a man has honest scruples in regard to the use of alcoholic drinks, profane language, etc., though he be hypnotized, he cannot be made to do something contrary to his convictions; in other words, he has a settled principle in his two minds).

The objective mind should govern and direct the subjective mind for the reason that the objective mind can reason. The subjective mind has prodigious and almost inconceivable memories, particularly as a result of the action of the objective mind. These memories are well illustrated in cases of fever or madness where the subject will speak in an unknown tongue, or do things which they would not do in the ordinary state, but upon whom impressions have been unconsciously made in childhood, or even in the very earliest babyhood.

The memory of the subjective mind, the one controllable, but sad to say, not always controlled is *perfect*. Sanity is

where there are reasoning powers of the objective mind combined with a good memory of the subjective mind. When the subjective mind dominates, even in bright individuals, we have the so-called eccentricities of genius; when it gains complete control, we have insanity.

Children are most purely subjective, and even a false story may frighten a child into convulsions, the child being fully aware of the fact that the tale be untrue, or will usurp the objective mind and insanity or at least a gross superstition, will be the outcome.

Training should be directed toward a perfect co-ordination of the two minds. The subjective mind comprehends without being trained. To impress the fact upon you, I will mention two instances to prove this claim, viz. Blind Tom and Zerah Colburn. Blind Tom was a negro blind from birth, and of a very low intellectual order. Almost from infancy he could reproduce most difficult musical productions after hearing them but once, and could improvise wonderfully well. Zerah Colburn was a boy, who, at six years of age showed wonderful powers of calculation, not due to training. He could tell at once if a number were prime or not. He could instantly raise the number eight to its sixteenth power; could extract instantly the cube or square root of large numbers. When later he was sent to school, and his reasoning powers developed, he could no longer do this.

The fact of impressions being unconsciously made in childhood, and later manifested during a fever is well illustrated in the following: "It occurred," says Mr. Coleridge, "in a Roman Catholic in a town in Germany a year or two before my arrival at Gottingen, and had not then ceased to be a subject of conversation. A young woman of four or five and twenty, who could neither read nor write, was seized with a nervous fever, during which, according to the asseverations of all the priests and monks of the neighborhood, she became possessed, and as it appeared, by a very learned devil. She continued incessantly talking Latin, Greek and Hebrew, in very pompous tones, and with a most distinct enunciation. This possession was rendered more probable by the known fact she was, or had been, a heretic. Voltaire humorously advises the devil to decline all acquaintance with medical men; and it would have been more to his reputation in the present instance.

The case had attracted particular attention of a young physi-

cian, and by his statement many eminent physiologists and psychologists visited the town and cross-examined the case on the spot. Sheets full of her ravings were taken down from her own mouth and were found to consist of sentences, coherent and intelligible each for itself but with little or no connection with each other. Of the Hebrew, a small portion only could be traced to the Bible; the remainder seemed to be in Rabbinical dialect. All trick or conspiracy was out of the question. Not only had the young woman been a harmless, simple creature, but she was evidently laboring under a nervous fever. In the town in which she had been resident for many years as a servant in different families, no solution presented itself.

The young physician, however, determined to trace her past life step by step; for the patient herself was incapable of returning a rational answer. He at length succeeded in discovering the place where her parents had lived; traveled thither, found them dead, but an uncle surviving, and from him learned that the patient had been charitably taken by an old Protestant pastor at nine years old, and had remained with him some years, even till the old man's death. Of this pastor the uncle knew nothing, but that he was a very good man.

With great difficulty, and after much search, our young medical philosopher discovered a niece of the pastor's, who had lived with him as his housekeeper, and had inherited his effects. She remembered the girl; related that her venerable uncle had been too indulgent, and could not bear to hear the girl scolded; that she was willing to have kept her, but that after her parents' death, the girl refused to stay. Anxious inquiries were then, of course, made concerning the pastor's habits; and the solution of the phenomenon was soon obtained. For it appeared that it had been the old man's custom for years to walk up and down a passage of his house into which the kitchen door opened, and to read to himself, with a loud voice, out of his favorite books. A considerable number of these were still in the niece's possession.. She added that he was a very learned man and a great Hebraist.

Among the books were found a collection of Rabbinical writings, together with several of the Greek and Latin fathers; and the physician succeeded in identifying so many passages with those taken down at the young woman's bedside that no doubt could remain in any rational mind concerning

the true origin of the impressions made on her nervous system."

To again quote Hudson, "These are not isolated cases. Thousands of similar phenomena have been recorded by most trustworthy observers. Their significance cannot be mistaken."

The subjective mind unhampered by its objective surroundings and objective mind could probably comprehend all of the laws of Nature, to know the exact truth without aid, but being connected with the objective mind, it is hindered until "death." The objective mind or will can govern the subjective, so there is great need of intelligent training. Here is a reason that worldly people do not care for church, they have not been trained to think of churchly affairs.

Having thus studied the composite metaphysical side of man, we can readily see that he has power to govern his own life and that of others by his own will, and the expression of his will is the expression of his own soul. The fact that he can normally control himself proves that he is an entity and thus has a separate soul.

(c). *The Protoplasmic Influences Upon Personality.*

The protoplasmic theory is somewhat more tangible and, therefore, somewhat less of a theory than the atomic theory, so we may safely assume that protoplasm is the physical basis of life, and having physical life, it must have some connection with real life or soul life. As this protoplasm receives impressions and sends out impulses, it goes through transitions, and is the life of the succeeding generations. Just as a fever in the head will cause symptoms in distant portions of the body by means of transference to the protoplasmic constituents of those far-off cells, so will emotions, good, bad, pleasant or sad, have a like effect upon the organism.

Every cell of the human body is the result of the kariokenytic processes of the one cell formed by the conjunction of the ovum and the spermatazoon, so that the spermatazoa and ova of the succeeding generation are an actual part of the entire ancestor, and not simply the result of the product of cell division. Being a part of the entire original, it cannot lose its identity as long as it retains life, and as long as it retains life it is sustained directly or indirectly by the blood of that individual, and as the blood circulates throughout the whole

system, impressions made upon it must be carried to every part of the body.

Through forethought, the various cells of the body mutually agree to the various duties to be performed by the various cells, and each cell is connected with or inhabited by what we call life, or otherwise the soul. Consequently we can justly conceive of the soul or spirit having a concrete existence, although invisible to the conception of poor finite man in his present state of understanding. These cells individually only possess a subjective part of life, and as that is the soul life, it cannot go wrong. So these cells know by intuition just what their individual duties are, and cannot go wrong unless caused to do so by some outside or objective influence. When the objective or reasoning powers are developed, the subjective mind of cells becomes less powerful.

As each individual has a separate soul, or spirit body, he or she has the means of developing expression and power in its various forms for good or evil, both as to the living of their own life, and to the effect their mode of living will have upon the descendants and associates. His life will have a tendency to govern that of his children, although in some rare cases these tendencies may be forced away by greater force of growth of other tendencies of opposite nature. But this is abnormal, and, therefore, a freak. Thus we have children of pious parents going to eternal damnation, and on the other hand, the offspring of evil parents turning to a better life. This is as abnormal as the birth of a double-headed child, Siamese twins, etc., being the exception rather than the rule.

Thus it can be seen that impressions made upon a man or woman are carried to the spermatazoa and ova, as the case may be, and retained, and years after, when they become fertilized, for the child to have a memory picture of events occurring long before the parents even had sexual intercourse with each other. This is well illustrated by the following: The author was consulted by a friend of his, a Mr. Philip Young, concerning a dream which he had in childhood. A number of years before his birth his parents were traveling in Germany, when a terrible accident happened. They avoided all mention of the whole matter as it had been too dreadful to continue to talk about. When quite a lad, Mr. Young had a frightful dream and described it the next day to his parents, the description being practically correct in all essentials with

the happenings of years ago, at a place thousands of miles away from where he had ever been. Thus a man, having sown his wild oats, settles down and marries, and when the children begin to come, is dismayed (if he be honest with himself) with the propensities evidenced in his offspring.

In such a case, the objective mind, i. e., the perfect mind, retained the impression and was carried to the next generation.. This phase of character-forming cannot be dwelt upon too much *that in a great measure the type of child that is to be, is being determined from the age of puberty of its parents until its birth into the physical world.* Its birth into the psychical realm was long, long ago a thing of the past. These influences, let us for convenience, call pre-prenatal in character.

Although the foregoing briefly describes the pre-prenatal impressions, it should not be omitted to state some facts about the prenatal influences. By prenatal influences is meant the influences exerted by the mother while the child is in-utero. A word in passing is here sufficient, as every parent, scientifically, religiously, or superstitiously recognizes some power of some prenatal influence. If there can be a pre-prenatal cellular influence, there is a greater prenatal influence as the child is now actively engaged in its bodily development.

In this stage the child is an actual part of its mother, and anything affecting her is liable to affect her baby. The reason for this is obvious. The objective mind of the mother is constantly making impressions upon the subjective mind of herself and also upon her child, and as the only mind the child has at this stage of its development is the subjective mind, some of these impressions will be indelibly made upon the subjective mind of the infant-in-utero, and the embryonic child is in its most active process of development, and consequently, more susceptible to impressions than when it comes to possess its own objective mind. Thus, impure thoughts, jokes, laughter, love, peevishness, hatred, etc., are all working upon the poor, helpless subjective mind of the unborn generations.

The general idea is, that the spermatazoa and ova are the products made at the time of sexual intercourse, but this is not strictly so. To better illustrate this, we will discuss the histology of these elements, not deeply but sufficiently to make certain points in this paper plainer.

Before the ovum is capable of uniting with the male sexual

element to carry out the changes attendant upon gestation, it passes through a cycle of preparatory stages or conditions known collectively as fecundation. The ovum is a more or less spherical body and contains protoplasm, the protoplasmic constituents consisting of a nucleus, mass of cytoplasm, and deutoplasm. The ovum is formed in the ovary, so a little description of that organ will here be in place. The ovary is divided into two parts, the cortex and medulla. The cortex includes the peripheral zone which contains Graafian follicles and the ova, and occupies about the outer third of the organ. The medulla includes the remaining central portions in which the blood vessels are the conspicuous constituents.

The Graafian follicles are formed in the embryo child as early as the 7th month in-utero, and the most important constituents of the cortex are these follicles. The last matured and youngest of these follicles are scattered bountifully throughout the outer part of the cortex. The most immature follicles consist of an ovum surrounded by a single layer of flattened cells. Among these immature follicles are others in various stages of development, in which the ovum is embraced by two or more rows of polygonal cells. The ovum is finally surrounded with a sac and the position of the Graafian follicles is changed so that finally the sac bursts on the free surface and the ovum escapes. This escape usually occurs at the time of menstruation.

The formation of the Graafian follicles continues but a short time after birth. The estimated number of follicles capable of producing ova are placed at 70,000. The nerves of the ovary include medullated and pale fibres, representing both the cerebro-spinal and sympathetic systems, and after passing into the interior of the organ, fine twigs enter the cortex, where they have been traced into the envelope of the larger Graafian follicles. Thus showing in a physical way the possibility of nervous impressions, both subjective and objective being made upon the ovum of an embryo child, and also showing a grave possibility of the formation of character tendencies of the embryo child's children, from the influences received from the mother.

Regarding the nerve fibres of the testicles, microscopical researches have so far been rather negative. To quote Professor Piersol, "Regarding the distribution of the nerves little is known further than the penetration of the bundles of

mixed fibres between the seminiferous tubules around which they form plexuses, the ultimate termination of the end fibres is unknown."

The young seminiferous tubules contain two kinds of cells; large germ cells, or archispermioocytes and between them epithelial cells. There is no further change until around the time of *puberty*. These archispermioocytes divide, one daughter cell of each pair remaining deep in the epithelium as a reserved cell, and the other changes a little and becomes a spermatogonium. The spermatogonium divide a number of times and finally produce a generation of primary spermatocytes. These go through certain stages and divide into two secondary spermatocytes, each of these in turn dividing and giving rise to two spermatids. After the last maturation division the spermatids unite with the protoplasm of certain cells in the tubules, and upon becoming fully developed, they are released and the cells known as the Sertoli cells become connected with a new set of spermatids. After the division of the secondary spermatocyte, the nucleus acquires a membrane, and finally, after other protoplasmic changes too devious to be explained in this paper, the spermatazoa is formed.

In the sexual act, the spermatazoa are ejected, and having the power of mobility, become united with the ova and the process of gestation begins.

(2). *The Effect of Character Upon Disease.*

This subject is a vital one in the treatment of nervous disorders everybody must admit, and even in other diseases, the action of the nervous mechanism is more and more considered as an important factor. The character of a person is but their bodily expression of their soul life or mind. If the harmonious inter-action is disturbed, we have all degrees of nervousness, melancholia, passion, delirium or insanity, according to the case we have in hand. In certain classes of patients, the physician directs that the person shall be kept isolated from all unnecessary outside influences. In other cases he advises the going to places of amusement, indulgence in athletics, etc. He does this empirically, but there is a reason back of the expected results, which he has not perhaps sufficiently investigated. He is in reality either giving the spirit or mind body a rest or exercise as the human body seems to demand.

Not infrequently patients supposed to be dying, by sheer force of will, resist and get well, while oftener we find that

when a person calmly declines to fight disease, they fail to recover.

To go too deeply into this subject the whole realm of mental therapeutics will be confronted, and that is outside of the purpose of this paper, which is to show enough normal and abnormal nervous influences to impress the necessity of the doctors of medicine taking a hand, and an active one, in the directing of the growth of the minds of the coming generations. It is our duty as physicians to take a hand in the production of a healthy state of mind and body as well as a human body, and therefore we will pass to the final part of our discussion. However, before doing so, it might be well to quote the following from "Success," issue of October, 1909:

"The different organs are especially susceptible to certain kinds of mental influences. Intense hatred, outbursts of hot temper, violent fits of anger, and some forms of worry have a very irritating influence upon the kidneys and materially aggravate certain forms of kidney disease.

Excessive selfishness and envy seriously affect the liver, while liver and spleen are strongly influenced by jealousy, especially chronic jealousy.

It is well known that violent, long-continued jealousy affects the heart's action most injuriously, as do all sorts of mental discord, such as worry, anxiety, fear, anger, especially where they become chronic. Multitudes of people have died from heart trouble induced by the explosive passions.

Jaundice often follows great mental shocks and violent outbursts of temper. People are frequently made bilious by long-continued despondency, fear and worry.

A physician says, "I have been surprised to find how often the cause of cancer of the liver has been traced to protracted grief or anxiety." Dr. Snow, an eminent English authority, says that the vast majority of the cases of cancer, especially cancer of the breast and uterine cancer, are due to anxiety and worry.

Sir B. W. Richardson says that irritations on the skin will follow excessive mental strain. "It is remarkable," this great physician says, "how little the question of the origin of physical diseases from mental influence has been studied."

These structural changes in the different organs are due to chemical changes in the development of poisonous substances in the tissues through mental influence.

As the entire body for all practical purposes is one mass of cells closely bound together, every thought that enters the mind, every change in the mental attitude, is almost instantly conveyed to every cell in the body, which is affected according to the nature of the thought. We are nothing but a mass of cells, brain, nerve and other tissue cells, and the whole mass is very sensitive to every mental process.

In a sense the body is an extended brain, and every thought, every mood, every emotion is transmitted instantly to the remotest cell. If the thought is discordant, if the emotion is vicious, it will carry its poison to the farthest cells.

Many people so poison their entire system by habitual melancholy, worry, fear and other discordant phases of thought that they ultimately wreck the physical body.

Love is the normal law of our being, and any departure from the love thought must result in anarchy of the physical economy, because the law of our being has been violated.

But everyone can rid themselves of their pernicious thought enemies, enemies of the mind and body, if they will take the trouble to do so.

It is not difficult to shut out all poisonous thoughts from the mind. All you need to do is to substitute the opposite thought to that which produces the fatal poison. It will always furnish the antidote of the latter. Discord cannot exist in the presence of harmony. The charitable thought, the love thought, will very quickly kill the jealousy, the hate, the revenge thought. If we force pleasant, cheerful pictures into the mind, the gloomy, the "blue" thoughts will have to get out.

When we shall have learned to shut out all the enemies of our health, of our digestion, of our assimilation, the enemies which poison our blood and other secretions; when we shall have learned how to keep the imagination clean, the thought pure, the ideals bright; when we shall have learned the tremendous power of a great life purpose to systematize and purify the life, then we shall know how to live.

When we shall have learned to antidote the hate thought, the jealousy thought, the envy thought, the revenge thought with the love, the charity thought; when we shall have grasped the secret of antidoting all discordant thoughts with the harmony thought; when we shall have learned the mighty life-giving power in the holding of the right mental attitude and

the awful tragedy and suffering which come from the holding of the wrong mental attitude, then shall civilization go farward by leaps and bounds."

(3). *The Application of the Subject of Character-Forming to the Practice of Medicine.*

The doctor is the one who is the best fitted to give advice for the guidance of the human race. The theologian and other scientists have some part to play, but they do not have the knowledge as does the doctor of medicine in regard to the human make-up, so righteously and logically there is a grave duty facing the physician of to-day. Because theorists outside of the realms of the fraternity of medical men are working definite lines and giving something definite to the world, while the physician looks on and decries, all the while realizing that some powerful agency is at work, Christian science, mental science, faith cures and a host of other similar forms of healing are *actually having results*. It is our duty to explain upon scientific lines the results everywhere manifested. Not only is the physician the one to teach the parents and prospective parents the grave responsibilities of child-bearing (not in such a manner as to discourage the having of children), but also to teach so that they will look forward to the bringing up of children of a healthy mental and human body.

A few salient points which a person engaged in the practice of medicine should bear in mind are:

1. The formation of not only nervous connection but also of cells which later on produce ova and spermatazoa in the parent, and the likelihood of impressions made in childhood and at any time before the sexual act of the parent occurs, will affect the make-up of the offspring.

2. The prenatal influences the mother exerts upon the embryo child.

3. The matter of the subjective mind being consciously and unconsciously having impressions made upon it, and governing the impulses of the offspring.

4. Impress upon the parents the effect of repeated impressions of a like nature upon a growing child causing fixed impressions or ideas. That a fixed idea becomes a principle, and a principle forms character. Hence the necessity of allowing only good repeated impressions to be made upon the offspring, and the then likelihood of the best settled principles.

5. Teach the need of watching a child, lest its subjective

nature becomes abnormally developed, and thus causing an emotional being, and paving the way for a host of nervous and other disorders.

6. The subjective mind is naturally highly developed in childhood, and is governed by its own objective mind and that of others. That we are constantly making protoplasmic impressions which will affect the mind of the offspring.

7. Do not teach a child a superstition such as a Santa Claus, Easter bunnies, Boogie-man, etc.

8. Teach that the time that a child is most susceptible to the gravest mental impressions is at the age of puberty.

In conclusion let me repeat that there are three theories of connection between mind and body, beside the material one which I advance, and it does not matter very much which one is acceptable to any one individual, for if automatism is considered, here we are considered to be dependent upon outside influences, and, therefore, the outside influences should be of the very best; if parallelism is accepted, the body should be kept as perfect as the mind, pure; if interactionism is thought most highly of, then both mind and body should be kept pure and guided aright. Consequently it matters not whichever theory we accept, the fact remains that there is a tremendous influence exerted in some way and bodily purity, both mental and physical, are effective in producing a decent and respectable individual, so let us endeavor to do our mite as it befalls our lot as practitioners of medicine.

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THE DIETETIC MANAGEMENT OF DISEASES OF THE HEART AND LUNGS.

BY

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IF there is anything more puzzling to the student of medicine than the contradictory statements of medical authorities regarding the medicinal treatment of disease, it is the contradictory views that are held regarding the dietetic management of disease. While medical men of all schools are united in the opinion that such regulation of the diet as is conducive to normal metabolism is an essential factor in the treatment of disease, there exists the most divergent views as to what regulation should be made in any given disease.

Much of the confusion in regard to the subject of dietetics undoubtedly arises from a desire on the part of physicians to find a specific diet for specific diseases. This search is likely to prove as long as it will prove fruitless, and we must recognize the fact that we should endeavor to prescribe a diet to meet the particular conditions present, and not in conformity to the name of the disease.

This leads me to say a few words regarding the innumerable dietetic fads that are so popular with the public. One can scarcely pick up a magazine or attend a popular lecture without being confronted with the food faddist with his particular system of curing all human ills. I do not question the good intentions of these enthusiasts, and I am free to admit that a certain amount of good has resulted from their efforts; but I am quite sure that the extreme to which they have gone and the unwarranted statements they have made have been responsible for many a case of tuberculosis, neurasthenia and chlorosis, especially in young people. Although most of these faddists differ in many particulars, they all unite in the cry, "The American people eat too much." That such a statement is both misleading and fallacious is evident to every practical physician. That *some* American people are sick *because they eat too much* is undoubtedly true; but it is just as true that *some* American people are sick *because they do not eat enough*.

Under-eating is just as likely to produce disease as over-eating. No better proof of this statement is needed than the fact that tuberculosis especially attacks persons who are

under-fed and poorly nourished. When we consider that more persons in the active stage of life die from this disease than from any other, and the further fact that at least one-half of our entire population exhibit evidences of tubercular infection in one form or another before reaching the age of twenty-five years, we can understand why this hue and cry against the use of a proper amount of meat and other nutritious foods has been productive of much illness and loss of life.

But tuberculosis is not the only disease superinduced by an insufficient diet. Nervous prostration, anemia, and a number of other conditions are traceable to the same origin. I could cite numerous examples from my practice to show that this idea is by no means a creation of the imagination. A few years ago I had under my care a young woman suffering from anemia and a valvular affection of the heart. By means of rest, nourishing diet and suitable medication she was restored to excellent health, and continued so for more than two years. About that time she had the misfortune to attend a series of lectures on cooking, delivered in a department store, by a popular lecturer and writer. Here she was told that two meals a day were sufficient for any one, that the eating of meat was a relic of barbarism, and that the ideal diet should consist of green vegetables, fruits and nuts. She was so impressed with the statements of the lecturer that she immediately proceeded to regulate her own diet along these lines. Loss of weight, anemia and general debility soon supervened, and at the present time this individual is under my care suffering from a recurrence of her cardiac trouble, together with tuberculosis of the lungs.

Wherein lies the fallacy of these doctrines so popularly disseminated? Not in the fact that they are wholly false, for there are, no doubt, many who find death in the flesh pots; but in the unwarranted assumption that because *some* people are made ill by eating too much that, therefore, *all persons* should reduce the amount of their food.

The wealthy, over-fed, plethoric club-man with high blood pressure and sclerotic arteries is familiar to us all; but so is the under-fed, pale and debilitated man or woman eking out a scanty subsistence in a cheap boarding house. To lay down the same dietetic rules for both of these classes of people is the height of folly and none but an enthusiast or a fool would attempt it. As a matter of fact, the selection of a suitable

diet for any particular person cannot be decided in accordance with any general rule, but we must take into consideration the age, occupation, race, climate and assimilative powers of the individual. The natural instincts and desires of a patient must be given due consideration in formulating the diet.

It has been shown that the dietetic customs of a nation represent the results of many centuries of combined experience of the race, and frequently constitute a more accurate guide as to the nature of the diet suitable for that race than any theoretical considerations devised in the laboratory of chemists or physiologists. The fact that the coolies of the East are able to subsist on a diet of rice, or that the Eskimos of Iceland are able to subsist on a diet of whale fat, does not prove that either of these substances should be the basis of an ideal diet for an Englishman or an American. The fact that the races of the world that surpass in intellect and physical power and endurance have subsisted on a diet consisting largely of meat from time immemorial, demonstrates beyond all question the beneficial effect of such a diet in supplying the elements necessary for vigorous physical development and health.

The nearest we can come to any general rule in regard to the matter of diet is to say that persons past middle life should eat less food than those under middle life; but even this statement must sometimes be modified.

In presenting to you my ideas as to the diet suitable for certain diseased conditions affecting the heart and lungs, permit me to say that they must be considered merely as suggestive and frequently have to be altered.

Broadly speaking, two classes of patients present themselves to us, namely, the under-fed and the over-fed. The general rule is to increase the diet of one and diminish the diet of the other. In actual practice this principle is of the greatest possible value, and far exceeds in practical importance purely theoretical considerations.

PULMONARY TUBERCULOSIS.

This is one of the diseases in which the diet is of paramount importance. The general principle that should guide us is to give the patient as much food as he can properly assimilate, especially of nitrogenous foods and fats. There are

two systems of feeding tubercular patients—the three-meal system and the six-meal system,—each of which has ardent advocates. The three-meal system, of which the diet recommended by Latham, of England, is an example, is based on the idea that at least five hours should intervene between the meals in order to give the stomach an opportunity to empty itself and to have a period of rest before the next meal is given.

CHART I.

DIET LIST (AUTHOR'S.)

Basis.	$\left\{ \begin{array}{l} \text{Milk—2 quarts=1300 Calories.} \\ \text{Eggs, raw—6} = 480 \quad " \\ \hline \text{Total .....1780 Calories.} \end{array} \right.$
7.00 A. M.	$\left\{ \begin{array}{l} \text{Milk—1 pint.} \\ \text{Eggs—2.} \\ \text{Crackers or toast.} \end{array} \right.$
9.00 A. M. Breakfast.	$\left\{ \begin{array}{l} \text{Fruit.} \\ \text{Cereal food.} \\ \text{Bread and butter.} \\ \text{Meat.} \\ \text{Milk with cocoa—}\frac{1}{2} \text{ pint.} \end{array} \right.$
1.00 P. M. Dinner.	$\left\{ \begin{array}{l} \text{Soup.} \\ \text{Meat.} \\ \text{Vegetables.} \\ \text{Bread and butter.} \\ \text{Salad.} \\ \text{Dessert.} \\ \text{Milk—}\frac{1}{2} \text{ pint.} \end{array} \right.$
4.00 P. M.	$\left\{ \begin{array}{l} \text{Milk—1 pint.} \\ \text{Eggs—2.} \\ \text{Crackers.} \end{array} \right.$
6.30 P. M. Supper.	$\left\{ \begin{array}{l} \text{Cold meat.} \\ \text{Bread and butter.} \\ \text{Jelly.} \\ \text{Baked potato.} \\ \text{Milk with cocoa—}\frac{1}{2} \text{ pint.} \end{array} \right.$
9.00 P. M.	$\left\{ \begin{array}{l} \text{Hot milk—}\frac{1}{2} \text{ pint.} \\ \text{Eggs—2.} \\ \text{Crackers or toast.} \end{array} \right.$

While this idea has much to recommend it, my own observation has been that the three-meal system is applicable to only a small percentage of cases. The vast majority of tubercular patients are unable to eat at a single meal the amount of food prescribed in the diet, and, therefore, their daily intake of food is much below that advised by Latham. Practically, I have had much better results from the six-meal system, which

consists of three solid meals and three liquid meals or lunches daily.

For the past six years I have used the diet as shown in Chart No. 1, with the most excellent results, and with slight modifications use it whenever possible. What I have termed the basis of the diet, as will be observed, consists of two quarts of milk and six raw eggs daily. This furnished almost 1800 calories of food energy, which is practically the amount required to meet the needs of an adult at rest. All the nourishment the patient can assimilate beyond this amount furnishes a surplus of energy that may aid the organism in overcoming the effects of the tubercle bacillus and its toxins.

It is my custom to insist that the patient take the basal diet daily unless there is some definite reason why a deviation from the routine should be permitted. In addition to the basal diet the patient is urged to eat as much food as he can digest, and it is well to advise, as far as possible, such articles of food as are agreeable to him, provided they are not of a harmful nature. I particularly encourage the use of meats, fats and a certain amount of fruits and fruit juice daily.

In carrying out this method of hypernutrition there are two details that must be carefully watched. In the first place, we must remember that we get a greater amount of absorption from a moderate than from an excessive quantity of food. Secondly, we must carefully guard against producing dilatation of the stomach. I have seen this occur more than once in patients who were taking a large quantity of milk,—from three or four quarts daily. The onset of this condition is usually indicated by heavily coated tongue, nausea and vomiting, distress in the epigastrium, and an enlargement of the area of gastric tympany is shown by percussion. Where such a tendency exists a dry diet should be used, the amount of liquid ingested being limited to two pints daily. Where patients are unable to take milk, in my experience the probability of recovery is much diminished. Scraped raw meat, meat juice, the yolk of a hard boiled egg mixed with cream, and preparations such as malted milk, Mellin's food, etc., are partial substitutes for the milk and egg diet, but rarely give satisfactory results. The evidences of a suitable diet are a steady gain in the weight and in the strength of the patient. Unless we can attain this result we cannot hope for any permanent improvement in the tuberculous process unless, as is occas-

sionally the case, the patient is already above the normal weight at the beginning of the treatment.

CHRONIC BRONCHITIS.

Primary chronic bronchitis is a rare disease. Most cases of chronic bronchitis are dependent upon a tubercular process or upon some affection of the heart or kidneys. The diet, therefore, must be adapted to the primary condition. If the bronchitis is primary, we must decide whether the patient is under-nourished or the reverse. If under-nourished, we should administer the same diet as in pulmonary tuberculosis, although it is not so essential to push the diet to its full limit. If the patient is over-nourished, an eliminative diet such as I shall presently describe as suitable for case of myocardial degeneration should be advised.

CHRONIC PLEURISY.

The vast majority of cases of chronic pleurisy, aside from those dependent upon malignant disease, are of tubercular origin. The same dietetic direction, therefore, as applies to tuberculosis should be directed in this disease.

ASTHMA.

In my experience, there is no especial diet that seems to have any specific value in the treatment of asthma. In some cases the diet must be increased; in others diminished; depending upon the general state of nutrition of the patient. An eliminative diet with a reduction in the amount of nitrogenous foods is very frequently indicated in asthmatic persons past the age of forty.

EMPHYSEMA.

The ordinary type of emphysema (hypertrophic) is frequently associated with asthma, and the statements made regarding the former disease apply with equal force to emphysema.

DISEASES OF THE HEART.

I am convinced that the diet is a factor of prime importance

in the treatment of diseases of the heart, and yet the difficulty in selecting a suitable diet in a given case of cardiac disease is often great. My remarks in this paper shall be confined entirely to the chronic diseases of the heart, the diet in the acute inflammatory conditions involving the heart and pericardium being the same as in any other acute febrile condition. The chronic diseases can best be considered under the following headings:

1. Compensated valvular lesions of inflammatory origin.
2. Compensated valvular and myocardial lesions of degenerative origin.
3. Uncompensated lesions either of the valves or of the myocardium.
4. Angina pectoris.
5. Functional diseases of the heart.

Compensated Valvular Lesions of Inflammatory Origin.

Valvular lesions of inflammatory origin are most commonly met with in persons under forty years of age. While compensation is good the dietetic regulations are simple but important. A mixed diet of plain, wholesome foods should be advised, the patient being cautioned against eating a large quantity at one meal. On this account three meals a day should be insisted upon unless the patient has a tendency to obesity. It is essential that these patients should not take on an excessive amount of flesh and should this tendency manifest itself the diet should be materially reduced. When the patient is thin and rather poorly nourished a liberal mixed diet should be advised as it is important to furnish the heart muscle with an abundant supply of blood capable of maintaining it in a good state of nutrition. Many patients who are thin, cold-blooded and have poor circulation in the feet and extremities are markedly benefitted by increasing the amount of nitrogenous food and fat in their diet.

The amount of water taken by these patients should be about three pints daily. If, however, there are any indications that compensation is failing it is essential to promptly reduce the daily intake of fluids. Von Norden advises, under these conditions, the reduction of the total fluid intake to thirty-two ounces daily. The pumping of any excessive quantity of fluid continually through the vessels is a serious tax on a feeble heart.

My advice to all cardiac patients is to entirely abandon the use of alcohol, tobacco, tea and coffee. I do not insist on this strictly in cases of chronic valvular disease, though I am sure that they never serve any good purpose and are capable of doing harm even in these cases.

Compensated Valvular and Myocardial Lesions of Degenerative Origin.

Under this reading we can classify the vast majority of cases of chronic heart disease occurring past middle life. The maintenance of normal metabolism in these cases is one of the most important problems associated with their therapeutic management. Degenerative changes in the blood vessels, chronic nephritis and gastric irritability frequently occur in connection with the cardiac condition and add to the difficulties of the problem.

The principles that must govern us in prescribing a diet for such cases are, to provide sufficient nourishment to meet the needs of the organism and to prevent the accumulation in the body of the waste products of metabolism. Nutrition and elimination are the ends at which we must aim. A lacto-vegetarian diet with a small amount of meat daily, preferably in the form of poultry or fish is adapted to the majority of these cases. Those who are poorly nourished should be given a moderate amount of meat once daily. It is especially important that foods causing flatulent distention of the stomach should be avoided as this exercises a decidedly unfavorable influence on a diseased heart. Five hours should be allowed to elapse between meals and no solid food should be allowed between meals.

The amount of water and other fluids given these patients should rarely exceed three pints daily and where there is marked failure of cardiac power the daily fluid intake should not exceed thirty-two ounces. To deluge these patients with large quantities of water, as is frequently done, is a serious error, as it adds to the work of an already over-taxed organ. It is well to restrict the amount of fluid taken at meals to five ounces, the remainder of the daily allowance being taken between meals.

Alcohol, except as a medicine, coffee, tea and tobacco should be entirely abandoned by patients affected with degenerative diseases of the heart. I was formerly inclined to believe that

undue importance had been attached to the deleterious effects of these substances, but growing experience compels me to the belief that alcohol and tobacco, in particular, are responsible for many cases of cardiac degeneration and their continued use seriously interferes with the restoration of the patient to health. It is needless to add that they must not be suddenly withdrawn from persons who have long been accustomed to their daily use.

Uncompensated Lesions Either of the Valves or Myocardium.

A restricted diet is always indicated in the beginning of cases of ruptured compensation. The passive congestion of the stomach and liver that accompanies ruptured compensation makes normal digestion an impossibility. It is, therefore, a wise practice to give the patient very light nourishment for the first few days of the treatment. My custom is to give the white of six or eight eggs, freshly prepared beef juice and a little milk. The patient should be fed about every three hours. Not more than three pints of fluid should be given in twenty-four hours. No salt should be added to the food after cooking.

As improvement progresses the patient may be allowed chicken, tender meats, junket, plain custards made of milk and eggs, purees and toasted bread.

Angina Pectoris.

As this disease is dependent upon a degenerative process involving the coronary arteries the same dietetic principles should guide us in its treatment as in cases of myocardial degeneration. In the vast majority of these cases over-feeding must be constantly guarded against. The meals should be small, easily digested and all rich foods, condiments and stimulants are to be interdicted. Flatulent distention of the stomach is always dangerous to these patients and on that account such foods as cabbage, corn, beans, etc., must be avoided. Vegetables are best given in the form of purees that have been passed through a sieve.

Functional Diseases of the Heart.

Under this heading we must class two types of diseases: (a) functional murmurs, (b) the cardiac neuroses.

(a) *Functional Murmurs.*

These murmurs occur in association with anemic states of the blood and while their cause is not clearly understood, the therapeutic management of these cases is very satisfactory. A nutritious diet containing a large amount of meat, milk and green vegetables is indicated. This combined with plenty of fresh air and proper medication usually brings about their complete disappearance.

(b) *Cardiac Neuroses.*

The cardiac neuroses constitute a large percentage of the cases coming to us complaining of heart symptoms. Diet plays little part in their cure, in my experience, except where the cardiac disturbance is largely dependent upon flatulent distention of the stomach. In the average case we have to prescribe the diet on general principles, increasing the amount of food in patients who are thin and poorly nourished and decreasing it in those who are inclined to be stout. We must not forget that coffee, alcohol and tobacco not infrequently cause functional disturbances of the nervous mechanism of the heart.

THE UNCONSCIOUS.

BY

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It is this class of cases that call for the most observant and the most painstaking care, often puzzling beyond description and at times you feel like the old negro who was asked how he knew the Lord loved him, replied that he "done just guessed so." The unconscious furnish for you the most use of your inductive reasoning and the most observant objective symptomatology. With little or no history to work upon they are brought to the door of our hospital and there laid for us to unravel. To have a working base let me divide them into the following classes:

Surgical Necessities—Cranial lesions.

Neurological Necessities—Toxemias, Poisonings, Sun-stroke, Apoplexy, Epilepsy, Hydrocephalus.

Occasion for operating on the brain falls theoretically under

two distinct classes; in each of these an entirely different mental process is requisite in determining the necessity for surgical interference.

There are the cases where, from some obvious injury to the head or disease of the skull, the need for surgery is apparent. They have been called surgical necessities.

Second—Are the cases where there is no objective evidence of a lesion; but the history of the case and the general symptoms present, suggest the presence of a lesion in such and such a place, and of such and such a character, without there being any possibility of directly observing it. This I am going to term "Neurological Necessity."

Of surgical necessity this paper will have little to say as it is a field for the surgeon rather than the neurologist. There is, however, one aspect of it too important to pass unnoticed, and that is the matter of the common injuries to the head, concerning which some very erroneous opinions have been prevalent. A very considerable experience with head injuries leads me to make and very earnestly emphasize the statement that we cannot estimate the amount of damage done to the skull or brain by local appearance of an injury to the head. The writer has repeatedly seen extensive fractures of the skull without there being even bruising of the scalp or with a scalp wound distant from the area of the fracture.

Not once, but many times, he has seen patients with consciousness preserved showing slight scalp laceration, but having in reality a crushed skull. Some cases have walked into the hospital themselves.

Only to-day, as if to emphasize these views, a boy was gathered up from a trolley accident and recovered consciousness in the ambulance, but yet we found a fracture running from the orbit almost to the external occipital protuberance, with a second and divergent lines extending downwards from above the ear towards the forearm magnum, and this with a complete shelving of the upper line of fracture over the lower one. Think of it! With a half inch wound, not directly over the fracture, and no general symptoms to speak of.

Every case of head injury should be most carefully examined, and the scalp should be freely opened and the skull explored if there is the slightest doubt; indeed, I am almost ready to urge that every case of head injury be adequately explored before it is permitted to pass out of observation.

Over the site of the fracture there is often an oedematous condition of the scalp or haematoma which serve as important guides in exploration. In the absence of local guides and there still being reason to believe the skull is fractured the author has for some years advocated the post-mortem incision as being the most free from anatomic and cosmetic objection and at the same time most efficient for exploring large areas of the skull. Numerous cases could be cited in support of these positions, but I am going to ask you to take them for the present "on faith," while we turn to consideration thereof.

Neurological Necessity.—Such is the task of the neurologist. He cannot see, hear or feel the lesion; and yet by a painstaking study of the symptoms and a piecing together of the circumstances in a given case, it is frequently possible to locate exactly the position of a morbid condition in the brain and even determine beforehand its probable character. This is less certain and seemingly less brilliant than the method of surgical necessity because it is infinitely more complex. Let me cite an illustration.

An elderly man was brought to the Hahnemann Hospital by the patrol, and the officers left without giving an account of the case. There was a contused wound over his left eyebrow; he was unconscious, but could be partially aroused, when his talk was incoherent and could not be understood, and he quickly lapsed into stupor. An empty four ounce laudanum bottle was found in his pocket.

The possible conditions here were, of course, opium-stupor, which caused a fall and head injury; uraemic or diabetic coma; post-epileptic coma; fractured skull from a fall or blow; apoplexy from cerebral hemorrhage; and a few other things. An examination of the limbs showed that he had a hemiplegia, that his left arm and leg and the left side of his face were paralyzed. This was important, as it served to exclude some of the conditions just mentioned. Had he poisoned himself with laudanum? I saw him two hours after he was brought to the hospital, and learned that on his admission the stomach had been emptied and the opium antidotes promptly administered, because of the circumstance of the empty bottle; but there was no odor of opium to the breath or stomach contents and the pupils were only moderately contracted, while yet immovable to the light.

At any rate opium does not produce hemiplegia, and, even had we regarded him as being poisoned by the drug, we would have had to look elsewhere for explanation of this symptom and that "elsewhere" would have been his injury or some independent lesion effecting his right hemisphere. That the hemiplegia was not an old one we satisfied ourselves by noting the absence of any rigidity of the affected limbs, and by the fact that the deep reflexes on the affected side were not increased. Uræmia, which can cause hemiplegia, with coma, by inducing localized brain oedema, was excluded by the negative results of examination of a catheterized specimen. The real possibilities in this case now seemed narrowed down to three propositions.

(1). A fall which fractured the skull and caused a subdural or epidural clot.

(2). The centre coup of a fall or blow on the head, causing a hemorrhage in or near the internal capsule, without fracture of the skull.

(3). An apoplexy from spontaneous cerebral hemorrhage, which caused him to fall and, incidentally, cut his head.

Between two and three it would have been impossible to have differentiated *a priori*, because the lesion would have been identical if either was the case, the difference being entirely etiological.

If the hemorrhage was cortical from head injury, the lesion must necessarily have been a large one; it must have taken in the entire Rolandic area on the right side, because the hemiplegia was very complete. Such a large lesion should have caused deeper coma than this man presented. It had to be remembered, too, that convulsive seizures while they may be present in capsular hemorrhage, are very much more liable where the hemorrhage is cortical. This man had several slight general spasms after his admission, and an examination showed that his tongue had been bitten.

I was interested to know more about the laudanum element. Did he take it for headache? And was that headache the result of a vascular disease which is apt to terminate in a cerebral hemorrhage? At this junction the wife opportunely arrived and from her we learned that the man was an opium habitue, that he had finished the last dose from the bottle two days previously, and that the dose was no larger than he customarily took. We also learned from the wife that he

had been walking around as usual the day before but that later he went to bed feeling ill, and that he fell on the floor, cutting his head and becoming unconscious.

A piecing together of these facts led to the opinion that the case was one of spontaneous hemorrhage in the capsule; but, in view of the several convulsive seizures, it was decided to give him the benefit of the doubt and make an exploratory trephining over the region we knew must be involved in a surface lesion. Such an operation detracts practically nothing from the chances of recovery in case of finding no lesion; and on the other hand should the signs have failed and there be cortical compression in spite of our evidence in favor of capsular hemorrhage it is the operation which will be the patient's salvation.

Dr. Van Lennep explored the contused brow finding no evidence of a fracture there. A trephine opening over the mid-Rolandic area showed no abnormality. The patient died early the following morning without regaining consciousness. Post-mortem showed two recent hemorrhages, one involving the right basal ganglia, destroying the internal capsule on that side; the other was in the cortex of the lower left occipital convulsion near the medium line. Had this man recovered, he would have had in addition to a permanent left hemiplegia a right-sided homonymous hemianopsia.

This case quoted at length not so much for its intrinsic interest, but simply to illustrate the method of induction and its difficulties as applied to neurological diagnosis.

Brain surgery has its indications in certain forms of cerebral hemorrhage, abscess, tumor, hydrocephalus epilepsy, congenital skull defects, and in recent and remote traumatisms.

Cerebral Hemorrhage may be considered as central and peripheral, recent and remote. Traumatic hemorrhages are usually (though not always) peripheral. The peripheral hemorrhages are either epidural or subdural. Epidural bleeding is usually from the middle meningeal artery, and is produced by injuries to the temporal region, and it generally produces hemiplegia with dilatation of the pupil on the same side as the injury. This is occasioned by the blood leading downward toward the base and pressing upon the third nerve.

Subdural hemorrhages come from the vascular pia mater, and may involve any portion of the brain cortex. It is not always possible to differentiate between these two varieties, al-

though the condition may be surmised by certain peculiarities of the symptoms, for instance, convulsions are more likely in subdural than in epidural hemorrhage. The slow development of pressure symptoms is more frequently the case in epidural or meningeal bleeding. A differentiation, however, is not important since, if we are satisfied of the presence of a cortical hemorrhage an exploration is indicated; and if we do not find the clot under the trephine button, we will find it under the dura by opening it, unless our diagnosis has been bad. Of course, our guides may direct us elsewhere than the motor cortex, as when there is aphasia of some kind, or hemianopsia, which lesions would point to quite different regions for our exploration, and in the case of hemianopsia, would be surely subdural.

Central hemorrhages are usually from the lenticulo-striate arteries and are spontaneous, being due to the ruptures of vascular atheroma. These cases have to be differentiated from thrombosis and embolism and that is another story. At any rate surgical interference in central hemorrhage in the present state of our knowledge is, for obvious reasons, inadvisable.

Remote cortical hemorrhages may become cystic with the same operative indications plus (perhaps) those of other chronic brain diseases. The guides for cysts are the same as those for hemorrhage and tumor.

Cerebral Abscess.—The infections of the brain come from without the cranial cavity and they may be general or local in character and distribution. Thus there may be suppurative meningitis or encephalitis of a diffused character, or a localized accumulation of pus without general involvement, or the two conditions may be combined.

The principal routes of infection are four in number: (1) cranial traumatisms; (2) suppurative diseases of the middle ear; and (3) purulent disease of the accessory sinuses of the nose, or infections of the orbit; (4) tuberculosis. The symptoms will, of course, vary according to the line of infection and the character of the process. They will be general or localizing. The general symptoms of brain infection are pain in the head, mental hebitude or delirium, vomiting, vertigo and convulsions. The pulse is slow, unless meningitis be present, when it is apt to be rapid and irregular. The temperature and vasomotor symptoms common in suppurative disease are frequent-

ly present here. Optic neuritis, while frequently present is said to be less common than in brain tumor.

The localizing symptoms vary with the seat of abscess, and constitute our guides to operation. An abscess from middle ear disease tends either to the temporal lobe or the cerebellum. If the process be left sided we are less apt to develop a misleading diagnosis, because aphasia or paraphasia is apt to develop if the lesion be temporal on that side. The indications point more to cerebellar abscess when symptoms of bulbar irritation supervene, with pronounced vertigo and the drunken ataxia of vermiform involvement.

Clinically the chances are almost even with the odds a little in favor of the temporal direction. A case which was opened, drained, and made a perfect recovery, of temporal abscess which ruptured into the lateral ventricle, has been elsewhere reported by Dr. Vischer and myself in a joint paper. In the cerebral suppurations from injuries, operative procedure will be guided by the locality of the injury or by neurological guides if they be present and unequivocal. These latter must always be given the preference in exploration, for instance if there be a definitely localizing kind of spasm or paralysis, even though the apparent point of infection be more or less distant, it is safer to follow the neurological indications. The rule is applicable to all kinds of head exploration.

Infection and Abscess.—As an extension from nasal suppurations has been discussed in the most interesting manner, with the citation of a number of cases by Grunwald. A diagnosis of this class of cases must rest on a knowledge of the source of infection and the general symptoms of brain involvement following in its wake, with the data, a frontal exploration is fully justifiable.

Cerebral Tumor.—Any adventitious development within the skull, whether it be inflammatory or not, is for all clinical purposes to be classified as a tumor. These are of relatively greater frequency in childhood. In early life we have the tuberculoma and glioma sarcoma and gummata in middle life. being more frequent than the other forms. Tumors may be single or multiple; they may involve silent areas or "localizing" areas of the brain, in any case, their presence is to be determined purely according to the principle of "neurological necessity" either by general cerebral symptoms, or both. Not many tumors are operative, even when they can be definitely

localized, for many may appear at the base of the brain or centrally within its substance inaccessible to surgical interference but indicating their locality by definite involvement of cranial nerves and other functioning structures deep within the brain.

Starr in his excellent chapter on "Brain-Tumor," in Der-cum's book in summarizing the present status of the surgery of tumors, says (referring to the 130 recorded cases of brain tumors operated in the previous six years): "Suffice it to say that forty-seven per cent. of the cases in which operation has been attempted have proved successful, the tumor having been accurately located and successfully removed with the recovery of the patient. Considering that this operation is a new one, that it has been attempted rashly in some cases as a last resort, where there was no probability of success and where failure was inevitable, it may be expected that the percentage of recoveries will in the future be much higher. It is, of course, a discouraging feature that but seven per cent. of tumors of the brain are open to operation, and that these statistics would indicate, therefore, that but three brain tumors in a hundred will probably be cured by surgical treatment."

As in abscess the determining symptoms are general and localizing. The general symptoms, which simply indicate that a tumor is probably present, are headache, optic neuritis and atrophy, mental hebetude, vertigo, vomiting, syncopal or epileptiform attacks.

The localizing symptoms serving as guides to the probable locality are, of course, varying. As if adding to our difficulties, it must be remembered that we know of some tumors of slow growth which have reached inconceivable size, even in active areas, without producing much effect, nay, at times being unsuspected. These are, of course, the exception.

If the growth is in the frontal lobe, the symptoms are equivocal and mainly mental, producing objective symptoms only as it encroaches on Broca's region and results in aphasia. Rolandic tumors are much more fruitful in surgical results; here we have monoplegias, perhaps progressing into hemiplegia as the growth extends. With this, or independently of it, there may be localized convulsive seizure or Jacksonian epilepsy. If with these symptoms, or a suggestion of them, there be anaesthesia or paraesthesia of the affected limbs, we probably must look a little farther backward in the parietal region

for the location of the growth; and if the lesion is left-sided (that is in right-handed people), there may be alexia, or word-blindness.

Posterior to this we get into the occipital region, where again a definite localizing symptom is apt to be met with, and that is a hemianopsia of the homonymous kind.

A tumor in the first and second convolution of the left temporal lobe will produce word-deafness, a condition in which, while spoken sounds are heard, yet they convey no meaning; in this kind of aphasia the patient cannot recollect spoken names and in consequence he cannot frame speech.

Tumors in the basilar region are, of course, inoperable. Cerebellar growths depend for diagnosis on our knowledge of the fact that damage to the middle lobe of this organ produces a kind of drunken stagger—the cerebellar ataxia. This symptom soon appears, even if the growth is in one of the hemispheres of the cerebellum, because of the fact that the anatomical situation of this structure allows but very little yielding in case of intra-cerebellar pressure being increased. To determine which side the lesion is on, we must be guided by cranial nerve symptoms or the occurrence of hemiplegic sensory or motor disturbance due to transmitted pressure of the base of the cerebrum or the medulla.

Any operative procedure on the medulla must be undertaken in a purely exploratory way since we cannot usually determine the exact position of the growth; and of the three surfaces of the cerebellum, but one is accessible through the skull and furthermore, the proximity of the medulla precludes much surgical manipulation. It is no part of the present paper to discuss diagnostic difference of the several varieties of brain tumor; but it is here desirable to call attention to the frequency of gummatous growths in the brain, presenting all the gravity and apparent severity of other kinds and yet being entirely amenable to proper therapeutic management. Gummata are of such frequent occurrence that it is expedient to subject all suspected cases of intracranial growth to the remedial test for syphilis. The writer has seen many cases, even with very formidable brain symptoms, fully recovered under suitable medical treatment.

Hydrocephalus consists in a distention of the lateral and other ventricles of the brain by excess fluid, this being accompanied by more or less blighting of the development of this

organ. If the development of this condition antedated osseous union of the organial bones, these will be separated at the sutures by the increased intracranial tension, and an enlargement of the head result. If the disease is acquired after closure and union of the sutures, no abnormality in the shape of the head will be present.

In this latter class, while there may be a variety of symptoms indicative of cerebral damage, a diagnosis is next to impossible.

In cases where the diagnosis is obvious and the prognosis bad, it may be expedient to drain off the hyperaccumulation of fluid by one of the several proposed methods. Most of the operated cases die, but enough benefit has resulted in some instances to justify the operation in this well-nigh incurable affection. The method of puncturing the fourth ventricle through an occipital trephine opening, I would hesitate to adopt, because of the proximity of the medulla, although this objection is not based on any personal experience.

Drainage by repeated lumbar puncture has found favor with many surgeons and some good results have followed. This method does not appear to be at all dangerous. The third method consists in the drainage of one or both lateral ventricles by puncture through the posterior temporal region. This operation, followed by strapping of the skull with adhesive plasters or strips is the most rational procedure we are at present familiar with; and although its mortality is high, it is the best that can be now offered in an otherwise incurable affection.

Epilepsy—This is a generic term, and includes many convulsions producing diseases in addition to the so-called idiopathic variety. For our present purpose we will define three types;

1. Idiopathic or general epilepsy, in which the symptoms, both objective and subjective, do not point to a gross organic lesion.

2. Focal epilepsy in which there is a definitely localized beginning to the seizures with or without the collateral evidences of organic brain disease, and with or without subsequent localizing symptoms, as, for instance, paralysis or anaesthesia.

3. Jacksonian epilepsy, which is a focal epilepsy sometimes sharply limited, but without loss of consciousness.

Surgery is not indicated in any case of idiopathic epilepsy. These have been trephined in times past with temporary suspen-

sion of the seizures, but this is not special virtue of the trephining, since any sort of surgical operation on an epileptic may stop the fits for the time being. The focal Jacksonian varieties are more apt to be grossly organic; but this is not always the case. When there is considerable lesion, some of the general symptoms of organic brain disease already mentioned are usually present, and with these, the focal character of the attack will indicate the locality of the lesion and furnish the guide for surgical procedure.

Epilepsies of this character, even without evidences of gross cerebral change, in most instances justify the opening of the dura and the removal of the area of the brain concerned in the origin of the fit. Specially are we warranted in this when by means of the brain electrode, we can, by the current on the exposed cortex, exactly reproduce the convulsion, with its focal peculiarity, at will.

As to the results of the surgical treatment of epileptic conditions, individual cases may be cited to show that they are sometimes brilliant but there are many disappointments, as might be expected in such a serious ailment.

This paper does not pretend to cover the entire field of indications for brain surgery nor even has any one subject been treated in detail, since to have done so would be to expand an essay into a treatise. This may be remembered in any attempt to apply these generalizations to a particular case. But brief reviews of special subjects do serve to refresh our minds on points and lines of treatment easily forgotten in these days, when there are so many things that the general practitioner must have knowledge of in order to keep pace with the times.

MITRAL STENOSIS.

BY

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MITRAL STENOSIS is one of the commonest, and in many ways one of the most interesting of the valvular diseases of the heart.

Possibly its chief interest to the internist lies in the difficulty which often attends a diagnosis, and also in the many peculiarities of its clinical course.

It is met with more frequently in women than in men—relatively twice as often.

The endocarditis which eventually results in mitral stenosis is due to rheumatism in 60 per cent. to 70 per cent. of the cases. Not necessarily frank rheumatic fever, but often the chronic, subacute variety. A history of one or more of the acute infections can usually be elicited; especially scarlet fever, chorea, measles, or often chlorosis. In a certain class of cases, almost exclusively met with in women, no certain cause can be ascribed. Such cases may be latent, detected in the course of a general examination and exist without causing any symptoms.

The association of tuberculosis with mitral stenosis has caused much discussion. Tileston concludes after a study of one hundred and twenty-eight cases at autopsy that a relative immunity to tuberculosis exists in those with mitral disease, owing to the consequent passive hyperæmia of the lungs. And, if present, the pulmonary disease has a strong tendency to become latent.

Tuberculosis has been advanced as a cause of mitral stenosis. Whether it is or not, the fact remains that clinically it is more often associated, in my experience at least, with mitral stenosis, than with other valvular defects.

In older persons, usually males, the condition is frequently due to arteriosclerosis, develops late in life, and is commonly associated with myocardial and other valvular defects.

Mitral stenosis is of course never recognizable as such during the primary acute endocarditis. Regurgitation may be the original lesion. Then a progressive fibrous infiltration of the valve leaflets and adjacent tissues follows. This results in a thickening and fusion, and agglutination of the valve cusps along their edges and the stenosis is instituted, to be further aggravated by the cicatricial contraction of the tissues making up the orificial ring, until eventually from the auricle the opening appears as a slit with rigid and unyielding edges at the bottom of a cup shaped depression. The appearance at autopsy depending upon the duration of the lesion, rather than the age of the patient.

The contracted orifice prevents the normal flow of blood from the auricle into the ventricle. The back pressure distends the auricle; dilatation, and some slight hypertrophy of the auricular wall ensues as the result of the additional work

thrown upon it, both by its effort to empty itself, and the greatly increased pressure in the pulmonic circuit.

The right ventricle bears the brunt of this back pressure, and its walls become hypertrophied and its cavity dilated. When it is no longer able to stand the pressure, dilatation of the tricuspid orifice takes place and the usual signs of broken compensation quickly follow.

The effect of mitral stenosis upon the left ventricle depends upon the amount of blood the latter receives. If a high degree of stenosis exists there is not sufficient time during diastole for it to become adequately filled. Hence its work is diminished, in that it has less than the normal quantity of blood to expel at each systole, and its muscle atrophies.

Less than the normal amount of blood being discharged into the aorta at each systole, results in a lessened blood pressure, which however is compensated for by a gradual constriction of the arterial channels.

The physical signs naturally vary with the stage of the disease, and if carefully investigated indicate to some extent the degree of contraction that the orifice has undergone.

In the early stages, particularly, the signs may vary greatly from day to day, especially the characteristic murmur which too commonly is depended upon to make a diagnosis.

Cabot says in commenting on this daily variation of the signs, that "these characteristics explain to a certain extent the fact that differences of opinion so often arise regarding the diagnosis of mitral stenosis, and that out of forty-eight cases in which this lesion was found at autopsy at the Massachusetts General Hospital, only twenty-three were recognized during life."

The patient should when possible be examined in the upright position, and also after exertion, for in many cases the murmur which is easily audible when standing may disappear completely when the patient is recumbent.

Mitral stenosis probably exists before it gives rise to physical signs, and then as said before, they may be "fleeting and inconstant."

Inspection may show nothing unusual unless hypertrophy of the right ventricle is marked, then the point of maximum impulse may be at or outside of the nipple line while a wavy movement in the third and fourth interspaces, just to the left of the sternum can be determined to consist of a systolic re-

traction over the right ventricle. Very little if any of the left ventricle being in contact with the chest wall.

Palpation may clinch the diagnosis without going further. At the apex in the majority of compensated cases a pronounced thrill can be easily felt preceding the apical impulse, and terminating abruptly with the short, sharp, shock thereof.

The shock accompanying the closure of the pulmonic valves can usually be felt in the pulmonic area.

The powerful impulse of the right ventricle may be seen and felt in the epigastrium lifting the lower end of the costal cartilages.

Percussion shows little or no increase in the area of deep cardiac dulness, for in uncomplicated cases the heart is rarely enlarged, and indeed may be smaller than usual on account of the small left ventricle. The right ventricle causes some increase of dulness to the right of the sternum, but the characteristic enlargement, determined by careful percussion of the left border, is an extension of cardiac dulness higher and further to the left than in any other form of heart disease, giving the area of deep cardiac dulness an oval shape with the upper left border bulging beyond a line drawn from the supra-sternal notch to the nipple, or the point on the left fourth rib where the nipple should be.

Barr, who rightly lays much emphasis upon this as a diagnostic feature, ascribes this to the enlarged left auricle, but Harris, quoted by Hirschfelder, has shown by autopsies that this area of dulness corresponds to the dilated conus arteriosus and dilated pulmonary artery.

The auscultatory findings in the average case are characteristic. There are two pathognomonic features. (1) The crunching, rumbling presystolic murmur, increasing in intensity, crescendo-like, up to the first sound and abruptly terminating therein.

This murmur is heard best, and sometimes only, over a limited area just within the apex impulse. It starts in late diastole, is harsh or crunching in quality, and rapidly increases in loudness until its abrupt termination in the first sound. It is of course synchronous with the palpable thrill. It is auricular-systolic, i. e. corresponds in time with the auricular contraction, and is due to the forcible propulsion of blood through the constricted mitral orifice by the hypertrophied auricle.

Another murmur is often present, heard in early or middle

diastole or both, blending in with the above presystolic murmur, or separated from it by a short interval.

Its explanation is simple; when the ventricular diastole takes place its sucking or aspirating effect, combined with the increased pulmonic pressure, causes the contents of the distended auricle to rush through the constricted orifice, generating eddies in the blood stream which are heard as the murmur. This murmur may remain even after the presystolic murmur has disappeared.

It depends upon high intropulmonic and auricular blood pressure, a narrow orifice and the aspirating force of the left ventricle.

(2) The characteristic first sound heard at the apex. Its quality is peculiar and in itself is probably more peculiar to mitral stenosis than the murmur. It may be described as short, sharp, snapping, and valvular. It may be audible some distance from the chest wall. Osler cites cases where the first sound was audible as he sat by the bedside of the patient. It is quite commonly heard several inches from the chest.

Its remarkable intensity is probably due to the rapid systole of the incompletely filled left ventricle. When the right ventricle weakens and even less blood is sent to the left ventricle the condition may become even more marked.

A similar first sound is frequently heard in neurotic conditions; in rapidly beating hearts when the ventricle has not sufficient time to be completely filled; and sometimes in dilatation of the left ventricle.

Doubling of the second sound is commonly heard as in any condition where the pulmonic pressure is greatly increased. Probably the fact that the left ventricle empties itself more quickly than the right has a great deal to do with it.

Since Broadbent's classical description of mitral stenosis, it has been customary to mention three stages in the symptomatology and physical signs of mitral stenosis:

First stage: When compensation is good, we have the snapping first sound and the presystolic thrill and crunching murmur over a limited area just within the apex. And if the obstruction is great we hear the early or mid-diastolic murmur also. The intensity of the second pulmonic sound is greatly increased owing to the high pulmonic pressure and the forcibly acting right ventricle, and may be split or duplicated. A second sound can be heard at the apex.

In this stage, as Broadbent points out, serious illness may be passed through without cardiac embarrassment. Even pneumonia or prolonged labor.

Second stage: A second sound is not now audible at the apex. Probably because the hypertrophied right ventricle has displaced the left ventricle backward away from the chest wall. There is reason to believe that normally the second sound heard at and to the left of the apex, is due to the closure of the aortic semilunars transmitted down through the left ventricle. When the latter is displaced, or prevented from coming in contact with the chest wall during the ventricular systole, as explained above, the second sound is no longer heard.

Third stage: Decompensation has now set in. The left auricle is exhausted and its systolic force gone. Hence the murmur has disappeared, usually co-incident with the onset of persistent irregularity. The right ventricle is dilated and tricuspid regurgitation has set in, quickly leading to systemic evidence of decompensation—Venous stasis, edema of the extremities, swollen, tender liver, ascites, etc. The exact nature of the valvular condition is now difficult, if not impossible to determine, and recovery is less common than from a similar condition resulting from a simple mitral regurgitation.

The diagnosis of mitral stenosis presents no special difficulty when the presystolic murmur is present. Many times, however, in its absence the diagnosis is made upon the presence of the thrill and the peculiar quality of the first sound.

In the third stage, however, when compensation is broken, the characteristic irregularity in rhythm present, the murmur and thrill absent, and possibly the only murmur heard, that of a regurgitation, then the presence of a stenosis may be only inferred from the gravity of the symptoms making it probable that we have something more than a mitral regurgitation to deal with. In this stage of decompensation when dilatation has set in, it is impossible to determine with any certainty the valvular lesions present. After rest in bed, the heart gradually finds itself, and we have frequently observed, day by day, the gradual appearance of a murmur characteristic of valvular lesions not even suspected at the first examination. This, perhaps, is more frequent with aortic regurgitation.

The presence of a mitral stenosis is frequently overlooked when a regurgitation at the same orifice is associated. The well transmitted systolic regurgitant murmur being louder,

overshadows the presystolic element, but there the quality of the first sound should serve to put one on guard.

In the presence of an aortic regurgitation a rumbling presystolic murmur is frequently heard which may lead one to suspect mitral stenosis. This murmur was first described by Austin Flint, and is known as the Flint murmur. It is a very interesting murmur, the causation of which has occasioned much discussion. It is heard only when we have the customary enlarged left ventricle of aortic regurgitation, and the apex is usually well outside of the nipple line, an unusual finding in mitral stenosis as already explained. The first sound of the heart has not the peculiar character of a stenosis.

A tricuspid stenosis may present confusing signs. This, however, is a rare lesion usually first recognized at autopsy, and if not associated with mitral stenosis should be readily separated by close attention to concomitant symptoms.

Attention has been called to a rumbling presystolic murmur often heard in children after an attack of pericarditis which may lead one to suspect a beginning stenosis. Prolonged observation and attention to signs other than the murmur may be necessary to exclude a mitral stenosis.

The clinical course of a case of mitral stenosis is apt to differ somewhat from that of other valvular diseases in certain respects.

The stenosis may be moderate and remain so, causing no circulatory embarrassment whatever. The case is latent, and latency, as Osler points out, may be its main feature. As a rule, however, the lesion is progressive, and presents changing conditions and symptoms.

The onset usually being early in life, the individual rarely develops a robust physique.

Subjects of mitral stenosis of long standing conform rather closely to a certain type. This applies especially to young women. They are very apt to be under-weight, poorly developed, or even emaciated, sallow, and suggest consumption very strongly. They readily become short of breath and develop precordial pain on exertion; they are subject to dyspepsia, constipation, and menstrual disturbances.

Hemoptysis on exertion is common, adding to its confusing resemblance to tuberculosis. Frequent attacks of bronchitis occur, and our apparently hopeless efforts to fatten them add

greatly to the difficulty in definitely excluding latent tuberculosis.

Another common symptom is a dry, paroxysmal, barking cough, leading to the consumption of much medicine, frequent change of physicians, and much searching for the indicated remedy. This symptom has been shown by Osler, to be due to pressure on the recurrent laryngeal nerve by the dilated left auricle. Consequently relief is only to be had by attention to the cardiac condition.

After decompensation has set in, usually as the direct result of cardiac strain, the course may not vary greatly from that of other valvular conditions.

Failure of the heart muscle is the common factor at fault and to be treated, but the conditions that confront us are somewhat different. In mitral regurgitation, for instance, the problem is to empty the left ventricle, in mitral stenosis on the contrary our task consists in trying to fill the left ventricle. This can only be accomplished by restoring the efficiency of the right ventricle, and in a minor degree the left auricle. It is manifest that when the lesion has increased to such an extent that less blood can enter the left ventricle and hence be delivered by that chamber to the circulation, than is sufficient for the needs of the body—then compensation can not be maintained, or regained when once lost, and the end is not long delayed.

However, the presence of most serious and desperate conditions due to decompensation may often be recovered from with judicious care. Life is compatible with a remarkably small auriculo-systolic opening. The prognosis for the attack at least may be determined to some extent by the extent of the aggravation that induced the attack. If the breakdown has been induced by but slight cause, the outlook is poor.

A few words in regard to treatment. The majority of cases come under observation for some of the minor results of the cardiac condition. The dry cough commonly, the precordial pain on exertion, the indigestion or even severe and unaccountable attacks of gastritis, or the general lack of vitality.

If the cardiac condition is realized (and a correct diagnosis may be only arrived at after repeated examination) measures directed to the prevention of cardiac strain, regulation of the habits and hygiene, and provision for ample rest will readily suggest themselves to the physician, and prove sufficient with-

out resorting to drugs. Especially should we guard against rheumatism. Even slight attacks are prone to aggravate the existing condition.

High blood pressure is a dangerous factor that must be combatted. No doubt the more frequent occurrence of damage to the valves and muscle of the left heart is due to the greater strain to which it is subjected in maintaining the peripheral circulation, and it is but reasonable to suppose that heightened blood pressure as the result of faulty elimination and the consequent circulation of poisons in the blood stream increases the work of the left heart, and adds to the violent collision to which the valves are subjected, and this aggravates the sub-acute inflammatory condition, characteristic of this progressive disease.

Therefore perfect elimination is to be provided for, constipation should be combatted if present, and explicit directions concerning a dietary be given.

When, however, the case presents evidences of broken compensation our problem, as said before, varies somewhat from the ordinary one of re-establishing efficient circulation.

No temporizing should be permitted. Absolute rest in bed, mild purgation, dry diet, and customary measures in the treatment of broken compensation promptly instituted.

A word in regard to the use of drugs, especially digitalis.

Possibly there is no more valuable drug in medicine than digitalis. If one is to believe all that is written there is certainly no drug more misused. The opinion seems to obtain that the much maligned general practitioner promptly flies to digitalis as soon as he hears a cardiac murmur, or determines the presence of a cardiac abnormality. So much has been written along this line, that I find the majority of recent graduates have such a wholesome respect, amounting almost to a fear of digitalis, and that old bug-a-boo its "cumulative effect," that they neglect one of the most potent weapons in our armamentarium.

Osler says that "for the young physician there is no other reputation producing medicine of the same rank with digitalis, and it is one of the dozen drugs the uses of which repay a life-long study. How he uses it may be taken as a sort of indication of the therapeutic intelligence of the practitioner."

It is not my purpose to enter into the pharmacology of digitalis. If any thing its careful clinical use will reveal beneficial

effects not to be expected from its action as studied in the physiological laboratory.

Certain it is that digitalis becomes a powerful weapon, (unsurpassed by any drug in cardiac therapeutics) in the hands of the man who has frequently used it, and studied its action on the diseased heart.

Mitral stenosis is one of the cardiac conditions in which digitalis is to be used with extreme care. And only when certainly indicated, otherwise the result may be disastrous.

Digitalis should not be given in this condition until we have unmistakable evidence of right ventricle failure (swollen, pulsating jugulars, cyanosis, enlarged liver, etc.), and then with extreme caution as regards the size and frequency of dose, and rarely over a long period. Smart purgation is here particularly valuable, or in the face of desperate symptoms—venesection.

When it has done its work, it should be withdrawn. While I have had patients who needed and took sufficient digitalis daily over a period of months and years, just sufficient to maintain the tonicity of the heart muscle, they have not been cases of pure mitral stenosis.

In conclusion I wish to emphasize the fact that victims of mitral stenosis are very frequently led to seek medical advice on account of debility, of pulmonary, menstrual or digestive complaints, in entire ignorance of the presence of the cardiac condition which is the main factor in the cause of their distress.

DISCUSSION OF DR. WILLIAMS' PAPER.

DR. NESBIT: There are many cases presenting a murmur suggestive of mitral stenosis in which no valvular lesion can be found, and the observation that digitalis is treacherous in certain types of mitral stenosis seems to indicate that this condition is frequently due to muscular weakness. Recent studies of the heart musculature has demonstrated that it is a clearly definite structure. The discovery of the effects produced by the inhibition of stimuli through the auriculo-ventricular bundle has demonstrated a large trend of effects which were not recognized before, such as extracystole, pulsus alterans, and which are now recognized to be the result of muscular failure.

DR. WELLS: Dr. Nesbit's remarks regarding the confusing

of functional murmurs with murmurs due to organic lesions have been amply confirmed in my observations. This confusion of functional lesions with organic lesions has resulted in a great deal of distress to patients and a great deal of discredit to doctors. The average doctor is too quick to pronounce the death penalty in cases that present themselves with a murmur present in the heart. He is too likely to give the patient the impression that he has an incurable organic disease of the heart which may possibly be somewhat ameliorated, but which sooner or later means his death. The effect of this idea on a chronic cardiac patient is very great, and as that mental strain and worry is a factor of great importance in hastening cardiac deterioration, I am satisfied that opinions of this nature do much to hasten the very end which the doctor has prophesied. I think that we ought to be very positive that an organic disease is present before advising the patient of this fact. Even after we are convinced that the lesion is organic, it by no means follows that the patient is doomed to death. While we may admit that it is impossible to entirely eradicate the abnormal murmur present in the heart, we should recognize the fact that the heart muscle possesses the power of compensating for the valvular lesion, and if the patient is properly cared for hygienically and medicinally he may live just as long as the average healthy individual.

DR. WILLIAMS: I firmly believe with Dr. Wells that there is room for the greatest optimism in treating heart cases. I think the psychic treatment is quite as important as the drug treatment. It is rarely that one is called to give a bad prognosis to the patient; in fact, he never should. In regard to the diagnosis, there will be this confusion between organic and functional murmurs if the diagnosis is based upon other signs than the murmur. No organic conditions, with the possible exception of acute endocarditis, can exist without confirmatory changes in the heart and circulation.

CHRONIC AND INCURABLE CASES.

BY

EDWARD CRANCH, PH. B., M. D., ERIE.

IN chronic cases, those which always recur after temporary improvement, are, as a rule, incurable.

All cases, acute or chronic, are always striving towards re-

covery, and medicines can only guide the real forces which complete the cure.

The physician must not discourage his chronic patient from looking for relief, but he must beware of promising ultimate cure.

All organic diseases of vital organs, such as the brain, heart, lungs, liver, skin and kidneys, are essentially chronic, and practically incurable.

In the treatment of all diseases, acute and chronic, a good knowledge of the general action of drugs, with a few particular characteristics of each, is more valuable than much delving in repertories, or attempted memorizing of symptoms.

In proportion as the memory is burdened with bare sentences, exact in form and repeated verbatim, just so much is the rational faculty of judgment impeded. The images in the mind must be those of living things, not mere words.

The man who can best relieve chronic cases, even those known to be hopeless, is sure of a faithful following, and will be able to do much good, and reap its rewards.

Business Proceedings of the Forty-Sixth Session of the Homoeopathic Medical Society of the State of Pennsylvania

HELD AT THE Y. M. C. A. BUILDING, WILLIAMSPORT, SEPTEMBER
20, 21 AND 22, 1910.

THE President, H. F. Schantz, M. D., called the meeting to order on the morning of September 20, 1910.

The divine blessing was invoked by the Rev. Dr. William Perry Eveland, President of the Dickinson Seminary.

Hon. Charles D. Wolfe, Mayor of the City of Williamsport, then delivered an address of welcome on behalf of the City of Williamsport.

Mr. President, Officers and Members of the Homœopathic Medical Society of the State of Pennsylvania:

I have always considered it an honor and a pleasure to be accorded the privilege of greeting and appearing before a body of men and women such as I see before me, men of intelligence and of high official calling in life, men of brains and education.

I regret that my time is limited this morning; but the very fact that you gentlemen have selected this, the ideal city for home, business and conventions, you have honored us. The substantial and flawless citizenship, with all their generous hospitality, are, I believe, to do you full honor on this occasion. We want it to be a memorable one, one long to be remembered and never to be forgotten. We hope that your sessions here will be productive of good, not only to yourselves but those to whom you administer.

I do not believe in being brief on occasions of this kind; neither do I want to be accused of prolixity, because neither one nor the other would answer the purpose for which I am here and mean anything to you unless we acted it out, by our every action, in greeting you not only here but as we meet you throughout the city.

I might say one word, "Welcome," or I might use a thousand words in extending welcome; but as I said before, it would not mean anything to you unless we acted it to you. Therefore, I extend to you, in a brief manner, if you will pardon me, a hearty and cordial welcome, welcome not once, twice, nor thrice, but a thousand times a thousand times welcome to our city.

Dr. E. C. Blackburn, President of the West Branch Homœopathic Medical Society, then welcomed the State Society on behalf of the physicians of Williamsport.

ADDRESS OF DR. BLACKBURN.

It is a pleasure, indeed, to welcome this Society in behalf of the West Branch Homœopathic Medical Society. This is the first time that we have had the pleasure of welcoming this Society to Williamsport. The West Branch Medical Society was organized almost three years ago, with a membership of seventeen. On account of widely scattered membership we meet but every other month. As the name West Branch indicates, our Society is composed of members practicing in the West Branch Valley, Kane, Pennsylvania, being the most western point, and Shamokin being the most eastern point. The members of our Society are enthusiastic; and our usual attendance is, as a rule, an average of thirteen or fourteen.

This meeting of our local society, through its various committees, and assisted by the ladies, have endeavored to prepare for you some social entertainment. We are very pleased, indeed, to welcome you; and we hope that you will thoroughly enjoy yourselves.

If you will allow me to divert just for one moment from the subject, I wish to speak of something that is of vital inter-

est to the societies that may in future entertain the Homœopathic Society of the State of Pennsylvania. It is becoming more difficult every day to secure a body of exhibitors for our meeting. I recently spent a very busy day in Philadelphia, calling on probably twelve or fifteen firms, and was unable to secure one exhibitor for our meeting. They say, while our attendance at our meetings is good, the men don't come in and see the exhibits. They say that this is not only true of our school, but also of the old school. It is of vital interest to us and to the future societies that may entertain us, that we see these firms, even if we do not wish to buy—show some interest in them. They come here with considerable expense to the firms; and I think it is due them that we show them some appreciation.

We certainly welcome you on behalf of the Society; and we hope on your return to your home that you will look back upon Williamsport and say that the meeting here has been a success.

Dr. W. W. Speakman then delivered the following address in response to the addresses of welcome:

ADDRESS OF DR. SPEAKMAN.

Mr. President, Ladies and Gentlemen: I know that you will all pardon our President for the oversight in his desire and haste to listen to his own address. When he asked me, a few moments ago, to make the address of response to the address of welcome from the Mayor, he stated that it was so because he was certain that I, of all members, would be able to get into the Young Men's Christian Association. I did not know, however, at the same time that he had warned the Mayor to get out, so as to escape my response. I understand that immediately on the arrival of the delegation that came up last night the Mayor made arrangements to increase the police protection for the city owing to some of the goings on at the Park Hotel.

I believe I am also to make response to the address of Dr. Easy Blackburn. Understanding the hospitality of this city, I am sure he has interpreted the very spirit of hospitality, and I am informed there is a number of us that all we have to do at the various hotels that we stop is to simply mention his name as we depart to the cashier and everything will be arranged.

Sincerely, however, and seriously, I want to extend our thanks on behalf of this Society to both the Mayor and to Dr. Blackburn for their cordial invitation; and I trust we will show our appreciation by our good conduct, and our attendance at all our sessions, and by the payment of our dues to the State Society; and that, coming from me, means a great deal: I feel that I owe the State Society a great deal. (Applause.)

The annual address of the President was then delivered by Dr. H. F. Schantz, of Reading. (This address will be found in full in THE HAHNEMANNIAN MONTHLY, February, 1911, page 81.)

Drs. Boyer, Bowie and Stewart were appointed a committee on the President's address.

The Corresponding Secretary then presented the resignation of Dr. George E. Levis, of Philadelphia, which was accepted by the Society.

The next order of business was the report of the Board of Trustees, which was read by Dr. H. S. Weaver as follows:

THE Trustees of the State Society wish to report that they have held their meetings during the year, two in Philadelphia and one in Williamsport.

At the first meeting the chief business was to consider the best way of collecting the back dues, so as to meet our indebtedness incurred by our last year's transactions. The Society had a lot of bills which were due and not enough money to pay them.

A second meeting of the Board of Trustees was called in Philadelphia to consider the proposition made by the HAHNEMANNIAN MONTHLY to become the State Society's Official Journal.

A committee consisting of Drs. Maddux, Bernstein and Gilbert were appointed to further look into the matter, and the following report was received and accepted from the committee last night.

WILLIAMSPORT, PA., Sept. 20, 1910.

To the Board of Trustees of the Homœopathic Medical Society of the State of Pennsylvania.

Gentlemen:

We, your committee to whom was referred the further consideration of the matter of the adoption of the HAHNEMANNIAN MONTHLY as the official journal of the State Society to publish in full the transactions of the State Society under the conditions and terms mentioned at the last meeting of the Board of Trustees, would respectfully report that the proposition has sufficient merit and attractiveness to warrant it being favorably reported to this general society for its consideration.

Respectfully submitted,

DR. P. MADDUX,

DR. RALPH BERNSTEIN,

DR. I. B. GILBERT,

Committee.

This report was accepted by the Board of Trustees, and it was moved and seconded and carried that this proposition be made a special order of business for Wednesday morning, so that it can be fully brought before the Society and its merits considered and either accepted or rejected, as the Society sees wise.

The following bills were presented and ordered paid, after the itemized accounts were gone over:

Dr. Ella Goff	\$65 12
Dr. Pond	69 60
George B. Cox	100 00
E. M. Gramm	182 93
Dr. Shantz	37 97
Ready Caglo Printing Co.	32 75
Dr. Bernstein	5 00

H. S. WEAVER, M. D.,
Secretary.

The report of the Committee on Organization was read by Dr. E. H. Pond.

September 20th, 1910.

To the Homœopathic Medical Society of the State of Pennsylvania:

Your Committee on Organization, Registration, and Statistics herewith presents its annual report for publication. It has been the aim of the committee to make this report as accurate as possible, but they have been handicapped by the lack of any reply from some to whom were sent requests for statistics. We would urge, upon these neglectful ones, less dilatory action in this matter; and at the same time express our gratitude to those who have been prompt in sending us the information desired.

E. H. POND, M. D.,
Chairman.

The report of the Committee on Legislation was presented by Dr. J. J. Tuller, Chairman.

Secretary Gramm then presented a motion that Dr. J. H. Sandell, of Plymouth, be placed upon the roll as a non-paying member. This motion was seconded and carried.

Secretary Gramm then presented the resignation of Dr. Charles M. Thomas, of Philadelphia, who stated that he was obliged to retire from practice on account of ill health. On account of Dr. Thomas's long connection with the homœopathic profession and his many services it was the feeling of the Society that his name should be continued on the list of members even though he were no longer active in the Society.

Motion was therefore put and carried that Dr. Thomas's resignation should be laid upon the table. It was further moved and seconded that a committee of three should be appointed to frame a by-law, to be presented at this meeting and to be acted upon next year, that would make some provision for retaining on the list of members of the Society without the payment of dues members who had served long and honorably in the Society. This motion was carried.

Secretary Gramm then presented the following report in behalf of the Committee on Publication:

The Committee on Publication is very much chagrined to be compelled to report as it is at this time. It has been the aim of the committee to issue the Transactions promptly, and get it in the hands of the members at a time when they are of interest to the people who do not attend the meeting. This year, the same state of affairs occurred as last year—that the Transactions were promptly in shape, were printed, and after they were printed the printer, instead of notifying the committee that it was his custom to deal with customers on the spot cash plan—take the money before he would deliver a single one—did not make any such announcement and simply held the Transactions. After a time went on, and wondering as to why the work had not—the work of sending them out was not completed, a letter to the publisher, to the printer, brought back the answer that he was ready to deliver them on the following Saturday. This was after quite a long delay.

The committee, of course, thinking that that meant what it usually means in any business house, a notification that it would be done, took no further action; and after six weeks went on it was found out that the printer really had to have his money before he was absolutely—or before he would in any way come further in the way of delivering the Transactions; so that we were held up at least eight to nine or ten weeks in the issuing of the Transactions, on account of this very poor business management of the people who printed our Transactions in the past year, and who, of course, will never be considered in the future in doing our work. They were too dead anxious for their money. The bills were paid, and that is the queer part of it. In the Transactions which these people printed they were able to see the exact state of the treasury; it was not that they could not inform themselves as to the status of the Society; it was not as though we had no people in Scranton who could say that our treasurer had never gotten away with any money; yet I say there was no excuse, absolutely no excuse, for the Transactions not being issued early, except this very

poor business policy, or so-called business policy, of this publishing firm.

On motion the report was accepted as read.

Dr. Emma T. Schreiner, on behalf of the Committee on Social Evil, reported that the work was progressing and that thirteen societies are in active operation. The committee suggested the appointment of a larger committee with members in all large towns, who should hold themselves ready to give or secure public instruction in sex hygiene. Report was accepted as read.

REPORT OF THE NECROLOGIST.

DR. WM. F. BAKER:

Mr. President and Fellow Members of the State Society of Pennsylvania:

It is my solemn duty to record for you the missing of the past year and to make our testimonial complete by a public acknowledgment of the service of the departed.

Among the missing this year I would report—

DR. JOHN EDWIN JAMES.

DR. ALONZO M. BARNES.

OBITUARY—DR. JOHN EDWIN JAMES.

Dr. John Edwin James, Professor of Gynecology in Hahnemann Medical College, of Philadelphia, died suddenly on February 17th, 1910. Dr. James was born at Somerton, Philadelphia, January 18th, 1844. He began his medical education in the Jefferson Medical College, of Philadelphia, in 1864, and received his medical degree from the University of Pennsylvania in 1866. He received his education in homœopathy at the Hahnemann Medical College, of Philadelphia, from which institution he received an honorary degree in 1886. In 1877 he was elected adjunct professor of surgery, including all departments, in 1889. In 1895, at his own request he was transferred from the chair of surgery to that of gynecology, which he held to the day of his death. Dr. James was an active member of the American Institute of Homœopathy and of numerous local medical societies. He was a consistent and able supporter of the principles of homœopathy and for more than thirty years has given freely of his time and ability to further the interests of the Hahnemann Medical College and Hospital. In spite of his active work as a teacher and physician, Dr. James found time to devote himself largely to charitable and religious movements, and his death will be as great a loss to the community as a whole as it will be to the college and hospital in which he held such a prominent place.

IN MEMORIAM—ALONZO M. BARNES, M. D.

Was born in Philadelphia, March 11, 1837. Died February 25, 1910.

Dr. Barnes was a graduate of the Philadelphia High School. Studied medicine at the Penn Medical College of Pennsylvania, and was graduated in the Class of 1858.

Soon afterward he located in the north central part of Philadelphia, in what was then known as the Village of Rising Sun, and continued in the successful practice of his profession until early in "'61," when the call to arms in the defense of the integrity of the Union thrilled the country, and Dr. Barnes, like Putnam of the Revolution, who left his plough in the furrow, turned over his practice to another physician and enlisted as a private in a regiment raised in Philadelphia, then known as the First California Regiment, commanded by Col. E. D. Baker, Senator from Oregon, a veteran of the Mexican War. This regiment was afterward credited to Pennsylvania and was known as the 71st Pennsylvania. At its first engagement at Balls Bluff, on the Potomac, the regiment was ordered across the river with inadequate means to retreat in case of disaster. At that time Dr. Barnes had been detailed for service which placed him among the non-combatants. He refused to take advantage of his opportunity to remain on the safe side of the river, saying, "it was not like war to do so." He went into action with his regiment, the gallant Baker was killed, many slain and many taken prisoners and sent to the military prisons at Richmond, Virginia, among whom was Dr. Barnes, who was made hospital steward by the rebel authorities. After six months' imprisonment he was paroled. He went before an examining board of military surgeons in New York City, passed an examination and was commissioned as Surgeon of Volunteers and assigned to Jacksonville, Florida, as Port Surgeon, where he remained during the war. He received and treated the Union prisoners of war upon their release from the prison pen at Andersonville, and was honorably discharged at the termination of hostilities with the rank of Major, or Brigade Surgeon.

Dr. Barnes was the faithful executive officer of St. Luke's Hospital for thirteen years. His services to the infant and growing institution were invaluable and the hospital has lost a valuable officer. For six years a sufferer without hope of recovery, he evinced a spirit of manly resignation and fortitude rarely seen.

A man of striking personality, of sterling integrity, native force of character, uncompromising in the advocacy of what he considered right, and withal of a kindly, generous disposition, which endeared him to us all, in his death St. Luke's Hospital

has lost a sincere and devoted friend who by his efforts has added lustre to her laurels.

His large and varied general practice had given him unusual opportunities for a grasp of the entire field of medical knowledge and he possessed powers of intuition which, added to his great experience, made him one of the wisest medical advisers at the bedside known to his contemporary members in the profession. He was a shrewd diagnostician and a practical prescriber. His success stands in evidence.

Dr. Barnes held a place in the hearts of all who knew him. His work is done. It is but the vase that is shattered, the good he has done shall not be interred with his body, the perfume of his memory will linger clingingly always.

A soldier, intrepid in action,

A physician, sagacious in council.

Beloved by patients and friends.

Absent—Present.

May the Great Physician deal kindly with him.

W. H. KEIM, M. D.

In the death of Dr. Barnes the State Society loses not only one of the senior members but also one of our staunchest homœopaths, for after his graduation in the old school he recognized the validity of homœopathic practice and was ever constant in its study and practice.

Dr. Barnes was for a number of years leading officer in St. Luke's Hospital, of Philadelphia, and was a member of all our societies including County, State and American Institute.

THE PRESIDENT: We have now reached the portion of the program of the scientific sections—report of scientific sections. I have several requests to make, before we go into the scientific portion of the program; that is this: I hope that members will attend the sessions promptly. We have a lot of work ahead of us; and by promptly attending our sessions at 9.30, 3 and 8 o'clock, we will be able to cover the ground. The afternoon session; or, rather, at the evening session a special order (the result of a motion some years ago)—we will have the Address on Homœopathy at the opening of the evening session at 8 o'clock. Dr. Arndt, Field Secretary of the American Institute of Homœopathy, is in the city; and we hope to have him at this evening meeting, to discuss the paper of Dr. Haines, and say some things regarding homœopathy in the United States.

According to your Trustees' report, and recommendations, the question of the Journal proposition will be presented to-morrow morning at 9.30; and as it is a radical proposition, it is wise that the meeting be well attended; and I ask for prompt attendance at the session to-morrow morning.

(To be continued.)

EDITORIAL

RECENT LEGISLATION IN PENNSYLVANIA AND ITS RELATION TO MEDICAL STUDENTS,

DURING the session of the legislature of this state, which closed in May, two acts were passed and approved by the Governor, which will have an important bearing upon the standards of medical education in the State of Pennsylvania in the future. One of these, an act to create a Bureau of Professional Education as a department of the Department of Public Instruction is intended and will undoubtedly establish a fixed standard of High School education throughout the State. The members of the bureau will be appointed by the Superintendent of Public Instruction, and one of their most important duties will be the standardizing of preliminary education in the high schools, that students desiring to enter the study of medicine, shall, when graduated from a high school, meet the requirements of the medical law, which prescribes that their preliminary education shall be equivalent to a standard high school course, and thus establish preliminary educational reciprocity with other states. Such a law as this is necessary in any state where the high schools of the different cities, towns and townships, have the right to set their own standards. This law has no power to compel the different high schools to elevate their standards, but, by placing before the educational boards of the different school districts, a standard which they must acquire before the students graduating from these schools will be permitted, without further examination, to enter the Colleges of Medicine, will certainly encourage them to bring their courses of study up to such a standard as will be set by the department of Public Instruction. Of the nearly ten thousand professional students that pass into the different professional institutions yearly, but a small proportion are fitted, because of the lack of standardization of the educational course in high schools, to enter these colleges. When it becomes known to these schools that they must comply with the requirements of the Bureau of Professional Education, or this

great body of young men will be unfitted for the work, it will have the influence to establish a uniform standard. Under the provisions of this act the functions of this bureau are the determination, evaluation, standardization and regulation of preliminary Education. Circulars of information and blank forms will be sent out upon application to the Department of Public Instruction. The department will also hold examinations for those who are not qualified by the standard of their own schools, and will issue certificates to all those who enter professional institutions. This law will take effect immediately upon the organization of the Bureau by the Department of Public Instruction. To sum up, all students who desire to enter medical colleges, must first obtain a certificate from the Department of Public Instruction, and in order to obtain this certificate they must submit their credentials of preliminary education to the Department of Public Instruction, and not to the medical college they desire to enter, for adjudication. The department will furnish all information in regard to preliminary education. The medical colleges will have no jurisdiction in the matter. Application for all information should be made to the Bureau of Professional Education of the Department of Public Instruction, Harrisburg, Pa.

The second act bears directly upon the question of medical education, and takes the place of the present three board system of Medical Examiners. This act goes into effect January 1, 1912. After describing who shall be considered as practicing medicine or surgery, and providing a penalty for the violation of the act, it goes on to create a Bureau of Medical Education and Licensure as a department of the State Department of Public Instruction, thereby placing all medical education under the Department of Public Instruction. The bureau shall consist of seven members; the Superintendent of Public Instruction, the State Commissioner of Health, five medical members to be appointed by the Governor, one each from the at present legally incorporated medical societies of the State, namely, one from the Medical Society of the State of Pennsylvania, one from the Homœopathic Medical Society of the State of Pennsylvania, and one from the Eclectic Medical Society of the State of Pennsylvania, and two to be selected by the Governor, provided these two do not represent the same school or system of medicine. It provides that upon all vital questions, such as revocation, suspension or refusal of a license, or upon questions

pertaining to matters of medical education, the unanimous consent of all seven members shall be required. It establishes a four years' graded high school course as the minimum preliminary educational standard. It provides for the annual inspection by the bureau of all medical institutions in the State as to the standard of teaching; the equipment and facilities of these institutions for carrying out the education of students upon the basis laid down by this act; it also provides that the course of medical study shall include thirty-two weeks of not less than thirty-five hours each week in actual didactic, laboratory and clinical studies in four different calendar years. Institutions that fall below the standard prescribed by this act shall be notified by the bureau of Medical Education and Licensure, and upon failure to comply with the requirements, after due notification, shall be refused the privilege of graduating students for licensure in this State, until such time as the institution shall comply with the law, and conform to the standards. During the last thirty days of the college course the Bureau has the power to direct an examination in the institution in which the student has pursued his studies. The only students eligible to come before the Bureau at this time are those recommended by the faculty. During this same period, students who have finished their second year work will be eligible to examination upon the branches they have completed, namely: anatomy, physiology, chemistry as applied to medicine, hygiene and preventive medicine. If these branches are passed, the examinations on these subjects are final; if failed in, however, the examination can be taken again at the close of the college course in the senior year. Those senior students who fail to pass the examination under the direction of the Bureau in the college, will be permitted to come up again before the Bureau at its regular mid-summer examination, provided they have successfully passed the college examination, and have received a diploma. At the discretion of the faculty, the Bureau examination held during the last thirty days of the college course, shall be final, so that one senior examination may grant both the diploma and license. The cost of license when issued by the Bureau will be twenty-five (\$25.00) dollars. Students from other States desiring to enter the State of Pennsylvania to practice medicine, will come before this Bureau for examination in the subjects pertaining to the practice in a similar way as is provided for by the present

law. The examinations will be conducted in writing, but may be supplemented by oral or practical tests, at the bed side or in the laboratory in the institution in which these studies have been conducted. The subjects to be examined upon include anatomy, physiology, chemistry as applied to medicine, hygiene and preventive medicine, pathology as applied to medicine, bacteriology, symptomatology, diagnosis, surgery, gynecology and obstetrics; medical jurisprudence and toxicology, materia-medica and therapeutics; the examination in materia-medica and therapeutics to be conducted by the members of the Bureau of the same school of medicine as the respective applicants.

J. J. TULLER.

THE AMERICAN INSTITUTE OF HOMŒOPATHY,

THE annual meeting of the American Institute of Homœopathy held at Narragansett Pier, Rhode Island, during the last week in June, was an unusually successful one. The attendance was considerably larger than that at any recent meeting and the character of the papers presented before the various bureaus and sectional societies were of more than usual value and interest. The wisdom of meeting in a locality where there are few outside interests to draw the members away from the meetings and thus divide their attention, was made evident by the good attendance at the business and scientific sessions.

One item of especial interest was the report of our Field Secretary, Dr. Arndt. Too much cannot be said of the value of the work Dr. Arndt is doing. During the past year he has visited all sections of the United States and has infused a new spirit of loyalty and of enthusiasm for the cause of homœopathy wherever he has gone. His work has also been an important factor in strengthening the bonds of professional friendship and unity between the homœopathic practitioners in various sections of the country. The words of encouragement that he has been able to bring to communities where homœopathic practitioners are few and poorly organized from the stronger and more progressive sections, has resulted more than once in the rejuvenation of interest and in the formation of new societies. We are glad to state that funds have already been raised to meet the expenses of Dr. Arndt's work during the coming year. As soon as

possible an endowment fund should be raised for this purpose in order that the permanency of this work may be made assured. Of particular interest to the homœopathic physician of Pennsylvania is the fact that the Institute honored one of our fellow practitioners, Dr. Thomas H. Carmichael, of Philadelphia, by electing him president of the Institute for the coming year. Dr. Carmichael is too well known to the profession to make any remarks on his career necessary. For many years he has been an ardent and persistent worker for the interests of homœopathy and has held several important offices in connection with institute work. His election to the highest elective office within the gift of the homœopathic physicians of the United States is a fitting reward for long and valuable service. We can only add the wish that Dr. Carmichael's administration of the affairs of the Institute may be productive of much good for the cause of homœopathy, to which end we bespeak for him the loyal support of every homœopathic practitioner, and especially the homœopathic practitioners of Pennsylvania. It has been many years since a resident of Pennsylvania has received this honor and the election of Dr. Carmichael should do much to stimulate interest in the national organization among the physicians of our State.

G. H. W.

COLD BATH PREVENTIVE AND CURATIVE AGENT OF INFANTILE CONVULSIONS.—Dr. Pearson in *La Clinique de Montreal* gives us some new views on the pathogenesis and treatment of infantile convulsions. The observation that in all cases of convulsion the temperature rises before the attack and while the attack lasts, led him to the employment of cold baths with success. Here is, for instance, one of the observations mentioned by the author of the report:

A child 5 years old, suffering from whooping cough and bronchitis at the same time, had a rise in temperature of 39 degrees, and his face became fixed and commenced to show evidences of convulsions. He was then placed in a cold bath containing ice, where he was allowed to remain a few minutes. Almost immediately the convulsive movements ceased, the temperature fell to 37 degrees and the child looked around the room.

As a general rule, the colder the bath the sooner will the temperature fall and the convulsions cease. It should be understood that whenever possible, to avoid shock, the water of the bath should be made cold gradually, but in urgent cases the child should be plunged into the water at once. (*La Tribune Medicale.*)

GLEANINGS

BACTERIAL VACCINES IN PUERPERAL SEPTICAEMIA.—Schwarz (St. Louis) recalls the quite general experience that localized puerperal infections cannot always be prevented, but with rational treatment they usually get well; in the severe forms of general infection the cases usually prove fatal no matter what therapeutic measures are employed. When anti-streptococcic serum was first placed at our disposal, it was soon found to fail in the heretofore fatal cases. The report of the committee of the American Gynecological Society on the value of bacterial vaccines is very conservative, and concludes by saying: "It would appear that the greatest prospect for its successful use is in chronic local infections, and that it offers very little hope in acute general infections where aid is so urgently needed." Schwarz has conducted some further experiments from which he concludes that the employment of bacterial vaccines must be based upon bacteriological diagnosis. In the more or less localized infections, such as those of the urinary tract by the colon bacillus, pelvic inflammation caused by the gonococcus and the various staphylococcus infections, vaccine treatment has a legitimate field and can accomplish much for good. In strictly local streptococcus infections the use of vaccines is unnecessary, while in partly localized streptococcus infections the use of vaccines is dangerous. In acute infections of any kind the use of bacterial vaccines is contraindicated. Prophylactic vaccination against streptococcus infection is possible, but it must be started many months before the patient is exposed to infection.—*Amer. Jr. Obs.*, Vol. 62, 895.

THEODORE J. GRAMM, M. D.

THE USE OF THE COLON TUBE.—Yates, (Detroit) has studied the use of the colon tube, especially as to its actually entering the colon, and by means of radiographs he has been able apparently to confirm the views expressed. They are that seldom, if ever, are soft rubber tubes admitted into the normal colon. When an endeavor is made to force the tube upward, even by the gentlest manipulations, it is found to coil itself up in the rectum and there do positive harm because of pressure, irritation, and the consequent inability to retain the enema. In perhaps half the instances it is impossible to tell when the tube is coiling upon itself even when we suspect it. Colon tubes as such are of no value because they do not reach the colon, and they are mischievous in that proportion as we endeavor to force them higher up. Water or fluid injected four or five inches into the rectum is carried upward into the colon and may be found at the caecum in ten minutes. There is good reason to believe that a reversed peristalsis is set up when fluids are injected into the rectum. The introduction of a tube more than five inches for colonic irrigation or therapeutic enemata is useless and likely to defeat the object desired.—*Amer. Jr. Obs.*, Vol. 62, 761.

THEODORE J. GRAMM, M. D.

EARLY DIAGNOSIS OF GASTRIC ULCER.—Charles N. Smith (Toledo, Ohio) approaches this subject in the way that has directly led to the brilliant achievements in modern surgery in late years. He insists that the differential diagnosis of chronic surgical lesions in the upper abdomen can be made with accuracy, in the great majority of instances, by the anamnesis alone. This differentiation can be strengthened frequently by the physical findings, and later receive confirmation from laboratory examinations. He further points out that the symptoms of diseases in the locality under consideration, as generally understood and as taught in the text books are often those of the terminal events or of complications. Of gastric ulcer, the author says it will be found that the symptoms have existed periodically for at least months, or more often, years. At first only an immoderate meal provokes the stomach distress. Later the one hearty meal was followed by pain, while the others were not so attended. Still later all three meals provoke the distressing syndrome. The fact that stomach symptoms have existed for a long period should of itself suggest the possibility of ulcer. That these symptoms have recurred in periodic attacks emphasizes the probability of ulcer. This periodicity is the most striking feature in the history of ulcer. In these earlier attacks the patient has perfect ease after taking food lasting from one to two hours in gastric ulcer and from two to five hours in duodenal ulcer, which is followed by a sense of weight, fulness and oppression in the stomach, later ameliorated by sour ecutation and the expulsion of mouthfuls of sour vomitus. It would be more correct to speak of the pain as preceding and as being relieved by the meal. In duodenal ulcer that attacks are often in the night, awakening from sleep. Tenderness on pressure is, of course, found. In a subsequent time when the symptoms are really those of the complications the appetite becomes fickle and the patient denies himself food because of the distress occasioned. Hemorrhage sets in long after the diagnosis should have been established.—*Amer. Jr. Obs.*, Vol. 62, 775.

THEODORE J. GRAMM, M. D.

THE EARLY DIAGNOSIS OF CHOLELITHIASIS.—According to Smith in his article on the diagnosis of the chronic surgical lesions in the upper abdomen, the initial symptoms are invariably referred to the stomach, are fairly constant, recurring meal after meal and day after day, varying but slightly in character and intensity. In some instances they are noticeable only after an unusually hearty meal or some particular article of diet. After persisting for some weeks or months there is an interval of complete rest. After ingestion of food there is no ease as in ulcer, but before the meal is completed or within thirty minutes thereafter there is a feeling of fulness, of weight and oppression invariably referred to the stomach. The pain is much less intense than in ulcer, occurs sooner after eating and is the pain of a full stomach, and does not progressively increase to reach its height in from two to five hours. This pain often radiates to the back in the direction of the right shoulder. The pain is frequently accompanied by chilliness, never severe, and usually in the evening. Shortness of breath while eating and increasing as the meal progresses is a constant complaint of some patients. Moynihan has called attention to a catch in the breath—a sudden stabbing pain—which

occurs on deep inspiration and is characteristic of gall-bladder disease. There is often a discomfort over the site of the gall-bladder extending along the edge of the liver to the axillary line. Flatulence is often experienced and free eructation relieves the gastric symptoms. Tenderness over the gall-bladder is a characteristic symptom. It may be elicited by insinuating the thumb under the edge of the liver and requesting the patient to take a deep breath. As the gall-bladder comes in contact with the thumb the sudden pain excited causes a sudden arrest of inspiration. Tenderness over the posterior surface of the liver is a valuable sign when present. These symptoms may continue without exacerbations for months or years. Later the well-known symptoms of gall stones may appear.—*Amer. Jr. Obs.*, Vol. 62, 781.

THEODORE J. GRAMM, M. D.

THE DIAGNOSIS OF CHRONIC PANCREATITIS.—Smith says as practically eighty per cent. of the cases of chronic pancreatitis are terminal events in gall-stone disease, the diagnosis of the former will be facilitated by recognizing the slight symptoms of infection of the biliary tract. The subjective digestive disturbances are generally overshadowed by those of the associated gall-tract disease. The valuable symptoms of faulty digestion are found in the altered condition of the feces. The evacuations are frequent, soft, bulky and pale. The frequency of the evacuations is due to their increased bulk, caused by incomplete digestion, especially of albuminous foods. Pigmentation of the feces being due to the presence of an insoluble pigment resulting from the action of pancreatic juice upon some of the coloring matters of the bile, it follows that the absence of either of these secretions results in pale feces. Microscopic examination will show undigested muscular fibre in the feces, and especially large quantities of fat. A difference of opinion exists respecting the value of the Cammidge reaction. Loss of weight results from pancreatitis secondary to cholelithiasis. Jaundice may be present. A striking feature of pancreatic inflammation is hemorrhage following slight trauma, due to the excessive elimination of lime salts in the urine. Hemorrhages into the skin are of frequent occurrence, and so is profuse menstruation. Pain and tenderness are variable symptoms. Tenderness may possibly exist two inches above the umbilicus and to the right of the median line.—*Amer. Jr. Obs.*, Vol. 62, 785.

THEODORE J. GRAMM, M. D.

THE EARLY DIAGNOSIS OF CANCER OF THE STOMACH.—Smith says in about sixty-six per cent. of cases of cancer of the stomach is but a sequence of ulcer, the symptoms being those of complicated ulcer. The period of stomach ease steadily shortens until there is none, and distress occurs immediately after taking food. Later in the disease the pain is continuous, and is aggravated immediately on taking food. Its location is epigastric. The appetite, at first restrained because of the distress, may be annulled by an intolerable disgust for food, particularly meat, and especially fat meat. Flatulence is generally present, and the eructation of gas is extremely offensive. Vomiting is not always present, and depends upon the degree of obstruction to the outflow of stomach contents which

in turn depends upon the location of the growth. If at the pylorus, this symptom is prominent and persistent. It is obstructive in character, urgent and copious. The vomitus frequently consists of long retained food and is intolerably offensive. Blood may appear simply as a show or as a decided hematemesis. If the cancer is located away from the pylorus there may be no vomiting. Anaemia is the most striking of all the symptoms, and shows most in the face. It is occasioned by the almost continuous loss of blood. There is progressive loss of weight and strength. Cancer developing upon a latent ulcer may be most rapid in its course. In these cases the symptoms appear suddenly while the patient is in apparent health. Hematemesis may be the first symptom, and the sudden resulting anaemia remains and increases. A palpable tumor is demonstrable early.—*Amer. Jr. Obs.*, Vol 62, 783.

THEODORE J. GRAMM, M. D.

THE DIAGNOSIS OF MOVABLE KIDNEY.—In his article on the diagnosis of lesions in the upper abdomen, Smith says of movable kidney: As pointed out by Longyear, movable kidney is associated with prolapsed colon, and the symptoms of one are blended with those of the other. Pain in a variable degree is a prominent symptom. Only in a small proportion of the cases are the distinctive attacks known as "Dietl's Crisis" present. They are sudden attacks of acute abdominal pain, attended by nausea and vomiting, weak, rapid pulse, cold, moist skin of collapse, with distended abdomen and the flexed knees of peritoneal infection. During these attacks the kidney is found tender and enlarged, and pressure upon it causes pain, nausea and faintness. Jaundice is sometimes present, and the swollen kidney may be mistaken for a distended gall-bladder. The pain may be mistaken also, for renal colic, but it does not radiate along the course of the ureter into the groin. In some instances the cessation of the pain is sudden, and in some of his cases the author has been able to bring about this sudden cessation by replacement of the organ. The ordinary pain of a movable kidney is that of dragging or weight in the upper abdomen and loin, and is increased by the erect posture. In the great majority of these cases there is a decided neurasthenia. An enlarged gall-bladder may be differentiated from a movable kidney by physical examination. A gall-bladder is movable from side to side, descends slightly during respiration, while a movable kidney is movable from above downward; a gall-bladder points from the ninth or tenth rib toward a point one inch below the umbilicus, while a kidney is displaced downward and outward. A difference in shape is characteristic of the two organs, and the gall-bladder seems superficial, while the kidney seems more deeply placed, and moves upward, inward and backward.—*Amer. Jr. Obs.*, Vol. 62, 788.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

LACHESIS is antidoted by a large number of remedies, among the most prominent are Ars. and Bell. Its analogues are Bell., Lac. can. and Lyc. It was introduced and proven by Constantine Hering, and, if he had never done anything else for the medical world this would have made him immortal. I do not intend to repeat in your hearing all the symptoms of this wonderful drug, but to call your attention to some of its peculiar characteristics.

There is one symptom which I wish to call your attention to, and that is the aggravation from excessive cold or heat. No other remedy has this symptom so marked, and I shall call your attention to this further on in a report of a clinical case.

It is useful in all troubles which begin on the left side, diphtheria, tonsillitis and paralysis, and which extend to the right side. Sabadilla, Rhus tox. and Lac. can. should be considered under this symptom.

One peculiar symptom is the aggravation after sleep. The patient sleeps into the aggravation. When the skin turns purple or bluish it is also especially indicated. A case of abscess in the left groin of a woman of 50 years of age, this symptom was quite pronounced, but Lachesis failed. Carbo animalis 10 m. opened it like a knife. It is a remedy for the climacteric in women. There is an intolerance of neck bands and of corsets. They can't bear the clothing tight. There is a mental characteristic of Lachesis, which is very characteristic, and that is loquacity; tongue runs like a wind-mill. Hahnemann says the mental symptoms have first rank in the selection of the remedy. Lachesis is a remedy for sun-stroke, and there it compares with Ant. crud., Nat. carb. and Glon.—Dr. William O. Cheesman, January *Recorder*.

SOME REMEDIES WHICH ACT UPON THE LIVER.—*Chelidonium Maj.*—Melancholia; fears she will not get well; sharp pain under the right scapula; a dull continuous pain over the entire region of the liver; the skin is yellow and dry; itching is marked; white of eyes yellow. The patient is drowsy, apathetic and often cannot sleep well. The stools are large, dry and light in color, or of a thin, pasty and bright yellow color. Urine scanty and loaded with bile. The liver is congested, enlarged, tender and aches. The appetite is poor or variable. If you find the constipated stool in the above group of symptoms give the chel, from the tincture of 3x. If the diarrhetic stool, the 30th or higher.

Carduus Marianus.—Vomiting; nausea; pain in region of liver; abdomen distended by flatus; liver enlarged; (Burnett says transversely, while chel. is perpendicularly); uneasiness in hepatic region; stool clay colored and crumbly. *Carduus* is a grand remedy when the condition of the liver seems to be secondary to some heart affection. Often the spleen becomes enlarged; also sebaceous cysts over the body. Five drops of the tincture or 1st have served me the best.

Myrica Cer.—Ash colored, mushy or constipated stools; beer colored urine with yellow froth and reddish brown sediment; aching and fullness in region of liver; a dull, heavy headache in the morning; conjunctiva dingy and yellow, tongue a dirty yellow; patient drowsy and despondent; skin yellow and itching. If in addition you have chronic catarrh of nose and throat with a *tough, tenacious mucus*, *Myrica* is all the more indicated. You also have dull aching and soreness of the muscles. Dose from 5 drops of the tincture to the 6th.

Podophyllum.—Stool very profuse and watery, leaving in the diaper fecal matter resembling yellow corn meal; or a light colored constipated stool. The diarrhetic stool is very offensive and occurs in the morning; protrusion of anus after stools; nausea with attempts at gagging; aching back of eyes; urine yellow and containing a sediment; skin yellow, moist, hot, with intolerable itching; sleep heavy, drowsy, yet restless, child tosses about and moans. Podo. 3x for the liver troubles accompanied by the constipated, clayey stool, but 30th or higher when accompanied by the diarrhetic stool.

Nux Vomica.—Painful sensitiveness in the region of liver, aggravated by slight touch; shooting, pressive, pulsating, cutting pains in abdomen, aggravated by eating or drinking. Frequent and ineffectual urging to stool; stool constipated; skin pale or yellow; sleep poor due to active mind; lies awake from 2 till 5 A. M. then goes to sleep and wakes up late unrefreshed; headache in frontal region; head feels as if it had been pounded. It is for the indurated liver of drinkers of alcohol that *nux* is most useful. It acts in all strength from 3rd to 1,000.

Chionanthus Virg.—White of eyes yellow; skin moist and yellow; stools yellow, soft and pasty; face has a drowsy, listless appearance; mind listless, apathetic, indifferent; bile and sugar in the urine; mouth feels dry while filled with saliva. This remedy seems to act best for the condition known as "catarrhal cholecystitis" and hypertrophy of the liver, and jaundice of children. There seems to be faulty elimination. The tincture and lower potencies.

Mercurius Sol.—Dirty, yellowish white coating of the tongue, which takes the imprint of the teeth; stools clayey or yellowish green which may be either bloody, mucus, or bilious, with tenesmus. Liver enlarged, sore and tender. Skin and conjunctiva jaundiced. Abdomen tympanitic, swollen and tender. Pain and soreness aggravated by lying on the right side. Dose, 3rd when the bowels are clayey, 30th when they are loose.

Leptandra.—Aching in liver especially in region of gall bladder, extending to spine; tongue heavily coated with dark streaks down the center. Stools black, tarry, bilious, undigested. Urine dark colored. Nausea and vomiting. Gloomy, despondent. Skin hot, dry, and yellow. Weak portal circulation. Dose, tincture to 3rd.

Hydrastis.—Goneness and faintness in epigastric region; intermittent acute pain in the liver, extending to the scapulae; *torpid liver*, the stools light colored and constipated. Skin hot, dry, dark greenish yellow, with heat and tingling. Atrophied liver with mal-nutrition. I never have obtained any benefit from *hydrastis* unless there were marked symptoms of a *general catarrhal condition*, and especially catarrh of the *stomach and duodenum*. Dose, 5 drops of 1x every three or four hours.

Lycopodium.—Dry skin and mucous membranes. Itching, brown, inflamed, "liver" spots; *tension in the region of liver*; tension as from a cord at attachments of the diaphragm. Violent, colicky pains in liver and along duct; hard, dry stool, with constriction of the rectum during stool; liver atrophied. *Lycopodium* is only useful in chronic cases. Often you will find ascites, edema of the feet, sour eructations, and brick dust deposit in urine. The 30th and 1,000th have served me the best.—George Royal, M. D., *Iowa Homoeopathic Journal*.

RECENT VERIFICATIONS OF SYMPTOMATOLOGY.—*Rhus Tox*.—Sciatica of more than twenty years standing, for which morphia had been several times used. Pain extended from hip to ball of foot, left side, beginning about 2 P. M., lasting until night; worse in damp weather, but goes off after continued walking, and after lying down at night. When pain is very severe most amelioration is obtained by holding the foot in very hot water. No particular restlessness at night, as warmth of bed brings relief and sleep. Arsen. 200 did not benefit; mag. ph. 3x, lessened its severity, but it would soon return; *rhus tox* 200th was then given with complete relief. Several months later a return of the trouble was again put right by the same remedy.

Ranunculus Bulb.—Intercostal neuralgia, following a bruise over ribs of right side; after bry., *arn.*, and *rhus tox*, in low potencies had failed to remedy, *ranunc. bulb.* 3x, gave relief in twelve hours, and now, three days since, there remains but a slight soreness on sudden false motion. The pain was knife-like, cutting off the breath, worse from any motion, inspiration, and it was absolutely impossible to lie down, slight cough with mucous expectoration.

Staphisagria.—Sebaceous cyst of many years standing diminished two-thirds its size, after taking this remedy in the 4x potency, night and morning for one month—patient is now taking her second bottle. The growth was situated on the lower lid of the right eye, yellowish white in color, and the size of a large pea, without soreness or pain.

Caulophyllum (3x).—Agonizing after pains, with intense soreness of uterine and abdominal walls; hard grinding, coming on every ten or fifteen minutes, and lasting for the same length of time; entirely relieved after a single teaspoonful of this remedy in water. Complicating factors in this case were albuminuria with swelling of both feet to the knees, a systolic heart murmur, an old umbilical hernia, and a breech presentation with tedious labor.

Sanguinaria.—Cough aggravated by inspiration, talking at night; with flushing of face, loss of taste, even water tasting badly; after puls., phos., sang. 3x removed speedily.

Podophyllum.—Chronic mucous colitis, with intense and constant tenes-

mus. Prolapsus recti during attack, which comes on every August, and lasts a long time; patient passes nothing but clear mucus, no blood, intense colicky pain before stool, which is aggravated by eating or drinking; after stool, faintness. Podo. 200 thrée powders, one taken each evening, relieved all tenesmus; and no more stools, after the second day when a single large plug of mucus was passed, with entire relief.

Hydrastis (3x).—Acute catarrhal colitis, relieved in two days, after five days of allopathic treatment. Stools were entirely painless, consisting of clear mucus, resembling sago; tongue clean, no tenesmus or thirst; has chronic catarrhal dropping in naso-pharynx, particularly when lying in bed, and goneness of stomach since taking a light diet.

Magnesia Phos (3x and 6x).—Has relieved all cases of gastralgia, when indicated by crampy pains relieved by bending over and by hot applications, with excessive flatulency in stomach. A case of ovarian neuralgia, several times diagnosed as appendicitis and quieted by morphia yielded to a few doses of mag. ph. 3x, after arsen., coloc., and bell. had failed. Pains were crampy, coming and going suddenly, not particularly benefited by heat, but observation showed that the patient was inclined, though very restless, to bend the body toward the painful side in trying to obtain relief. A case of cardiac pain with excessive flatulency, diagnosed as angina pectoris, for which old school physicians had repeatedly given morphia, finds its complete similimum in this remedy in the 3x potency; a few doses dry or in hot water, gives immediate relief.

Allium Cepa.—Is a friend many times annually in its speedy arrest of coryza with its well-known modalities, a good remedy with which to convince doubting nurses and allopathic physicians (sometimes) of the efficacy of a therapeutic law.

Staphylocin C. (Shedd).—Removed after a brief period of aggravation, two cases of furunculosis; the one following severe burns of both arms, hands and face from explosion of gasoline; the other, chronic, of two years' standing with anemia, in a child of about seven years.

Belladonna (3x followed by sulphur 200th). —Has given most satisfactory results in a case of glaucoma of apparently rheumatic origin, which rhus tox. had seemed to greatly benefit in its acute manifestations.

Cimicifuga (3x followed by lachesis 6th).—Has for the past six months given entire relief in a case of chronic headache of six years' standing, following hysterectomy. Pains occipital and on vertex, extending to cervical muscles, with flushings.

Silica Marina (3x).—Has proven itself of service in constipation, with inactivity of the rectum with receding stool (silica and nat. mur.).

Hyoscyamus (3x).—Has repeatedly relieved the short, hacking cough from bronchitis or elongated uvula. Also coughs worse on first lying down at night.

Iris Versicolor (3x).—Has been very successful in cases of bilious headache, also in neuralgia following grippe, with the characteristic nausea, right sided pain and vomiting; it has also proven itself of speedy benefit in gastro-enteritis, vomiting with purging, headache and sour stomach, profuse painful stools, excoriating the anus.

Ambrosia.—Given in the tincture, ten drops in a little water during or

after an attack of epistaxis, has been followed by complete removal of the difficulty. Ferr. ph., arnica, and carbo. veg. had been given.

Natrum Muraticum (30th potency, in chronic head ache).—Patient aged 80 years, a sufferer from chronic bronchitis; during her attacks has a slow intermitting pulse; begins on first waking in the morning, wears off as the day advances, or lasts two days and a night. This remedy has, the past few months, given relief from headaches, after bry., dig., and sang. had been given.

Crocus Sativa, 200.—Relieved sensation as of something alive in the stomach and abdomen, following miscarriage.

Sabina 3x and 200th.—Has relieved menorrhagia, with bright red flow, alternately dark, clotted, or watery, accompanied by the characteristic pain from sacrum to pubes.

Dulcamara 3x rapidly removed a warty growth on two fingers in succession.

Symphoricarpos (2x).—Gave rapid relief in the vomiting of pregnancy at the second month. Ipecac temporarily relieved; sepia seemed indicated, but was not satisfactory in the 6th potency; nor did arsen. help any—the above remedy cleared up the whole condition in from two to three days. There had been constant vomiting for more than a week. Nausea more or less constant, slightly relieved after vomiting. The patient was of dark complexion, slight build. Thirst was intense but water either cold or hot disagreed; there was loathing of all food, even the smell of cooking (sepia, arsen., and colch.).—Benjamin C. Woodbury, Jr., M. D., *North American*.

MATERIA MEDICA NOTES.—*Stramonium*.—For complete suppression or when only a few drops are secreted and dribble from the bladder. I find it most frequently indicated in typhoid or other low fevers, and when we have delayed or suppressed eruption of the exanthemata. Dose: Five drops of the 3x every half hour.

Bryonia.—For scanty, hot, dark, red almost brown urine with drawing stitching pain in the back and general soreness and stiffness of all the muscles. The bowels are usually constipated. No casts, no albumin, simple congestion of the kidney due to "taking cold." Bryonia is frequently called for in Iowa, where we have sudden changes of temperature. To be given in 3x or 6x.

Cantharis.—For acute nephritis with scanty, bloody, albuminous urine, or for renal calculi with hæmaturia with hot, scanty urine. In both conditions you have violent cystitis, frequent urging, unbearable tenesmus and cutting, scalding, burning pains in ureters, bladder and urethra. Often sexual excitement either priapism or nymphomania. In region of kidney cutting, burning pains and sensitiveness. Give from 3x to 30th.

Arsenicum.—The kidney symptoms of arsenic must be divided into three groups in order to clearly understand the remedy. *The first we will call the acute nephritis group.* Urine very scanty and albuminous or completely suppressed.

Ars. Great restlessness, marked thirst, red, flushed, puffed face, weak, rapid pulse, extremely irritable stomach with nausea and vomiting.

Second Group.—*Chronic nephritis*, has scanty albuminous urine, tube

casts, oedematous extremities, pale waxy face, stools dark and watery, great prostration and weakness, marked emaciation. You note the difference in the presence of tube casts, the oedema and pale face.

The third group is the diabetic group not strictly a kidney group. Urine profuse, specific gravity high (1046 to 1060), dry mouth, dry, scaly skin, unquenchable thirst, restlessness and rapid emaciation, stool alternating diarrhea and constipation.

Apis.—For both acute and chronic nephritis. In the acute we have urine *almost* or *completely* suppressed. If any, the specific gravity is high, color dark, almost red. Urine loaded with casts. Sore, bruised pain in the region of kidneys and abdomen. Dropsy of the face and upper part of the body comes early. The patient is *apathetic, stupid* and has *no thirst*. In the chronic we have sudden *increase* of *dropsy* in the chest, abdomen and about the head. There is marked *dyspnoea*, even *suffocation* on lying down.

Merc. Cor.—Urine scanty, thick, albuminous. Granular and fatty casts. Micturition frequent and painful accompanied by marked strangury, hemorrhage of the retina. Pale, swollen face. Use the 6th.

Plumbum.—The best remedy for interstitial nephritis. The specific gravity may be very low (1002) or as high as 1035. You find the diagnostic tube casts. The urine is scanty, dark and albuminous. The lower limbs are swollen and feel numb. Severe pain in the ureters. Amaurosis, constipated bowels and a pale, sallow, earthy skin.

Phosphorus.—For a chronic degenerative nephritis. Urine phosphorescent, loaded with fatty casts, blood. Burning in the region of the kidneys. Often a white sediment. Disturbances of vision and retinitis albuminurica. The stool is usually soft and mushy with particles resembling fat upon it. The face is pale, sunken and sickly in appearance.

Terebinthina.—For nephritis. Urine bloody; blood and urine well mixed, or suppressed. Strangury, frequent urging, burning and soreness in the bladder and urethra. Urine has the odor of violets. Burning drawing pain in region of kidney. I consider the murky appearance of the urine characteristic. Tereb. 3rd and 6th.—Dr. George Royal in *Iowa Homoeopathic Journal*.

PHYSIOLOGICAL DYNAMISATION.—There is an establishment in Paris, where a little flock of goats and asses are most carefully raised. They are subject to *mercurial frictions*. Small doses of *calomel* are administered to them, and their milk is given to persons who are suffering from diseases produced by *mercury*, and whose constitution is too enfeebled to take this medicine in massive and direct doses. What is perhaps the most astonishing part of the affair is that the establishment is under allopathic direction. Children at the breast in the Necker Hospital are also treated by this ridiculous method of *physiological dynamization*.—(Granier, 1859.)

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

KLEPTOMANIA.—The excellent description of Dr. Regis, of Paris, reads as follows: It is a condition of conscious and irresistible impulse to theft. Tendency to steal may be encountered as a symptom, in some mental affection, notable in general paralysis, imbecility, dementia; but here it exhibits the special characters of a neurasthenic impulsio. That is, it presents itself under the form of an obsession, accompanied with resistance and distress, and which causes the ordinary phenomena of paroxysmal attacks. The articles stolen are often insignificant; occasionally only one object, always the same, is stolen, and the patient accumulates most incredible collections of these.

As in dipsomania, erotomania, sexual perversions, pyromania, and tendency to suicide, the impulsio is irresistible, and frequent at the menstrual period.

Bianchi, of Italy, gives *obsessive kleptomia* as a subgroup, and he states that in obsessions of this sort we have neither imbecility nor the unconsciousness of the epileptic, nor the deliberate design of a delinquent; there is only the imperative obsession that constantly forces the subject to do a deed that is in the highest degree repugnant to him. A surgeon-captain in the navy, neuropathic and a misanthrope, in whose case I had to express an opinion in the course of judicial proceedings, was obsessed by the notion of stealing sugar and coffee from one of his messmates whenever he had the opportunity, although theft was repugnant to him, and although he knew he could not make use of what he had stolen, for he was in easy circumstances and hardly ever took coffee. It was an imperative impulse that he could not resist. When obsessive impulses are harmless they are rapidly put into action, and we find hardly any trace of a struggle, except the anguish that arises from the extrinsic difficulties met with in performing the act.—(*Trattato do Psichiatria of Prof. Bianchi.*)

THE THEORY OF IONS.—It is known that molecules are the smallest particles into which a substance can be divided without altering its constitution, but these *molecules* may be further divided into *atoms*, which are the ultimate particles of matter. The atoms have a definite weight, which is characteristic of each element, and the specific heat of the element is universally proportional to this atomic weight. A molecule cannot be resolved into its component atoms without satisfying the chemical affinities and valencies of these atoms. Even when we dissociate a molecule such as HCl. containing two atoms, we are unable to isolate the atom H or the atom Cl, since the molecule of each of these elements, H₂ and Cl₂ is diatomic.

In electrolytic solutions, that is, solutions of acids, base and salts, a

particular form of dissociation takes place. Thus the molecule K_2SO_4 is split up into an acid radicle SO_4 and K_2 , each of which acts as a molecule in its osmotic, cryoscopic and tonimetric relations. These two portions are the *ions*. According to the theory of *Arrhenius*, these *ions*, so long as they carry an electric charge, do not behave as chemical entities. As soon, however, as they lose their electric charge, they become subject to the chemical laws of affinity and valency.

With the same number of molecules in solution, the osmotic pressure is the same whatever the solute, and whatever the solvent. Solutions of acids, bases and salts are an exception to this law; in dilute solutions each molecule is dissociated into two ions each of which behaves like a molecule. In stronger solution some of the molecules are dissociated while others remain intact.—(*Guilleminot*.)

The *transportation of ions* takes place in a very interesting manner: Take three glass jars, the first containing *potassium*, the second *water*, and the third *sodium sulphate*; connect them by means of wet cotton wicks, the first with the second, and the second with the third, and then allow this electrolytic conductor to be transversed by a current, the positive pole being in the jar containing *potassium*. Now, if the current has passed for some time with sufficient intensity, chemical analysis will show, that the first jar contains, besides *potassium*, *sulphuric acid*, while the last jar contains *potassium* and some of the primitive *sodium sulphate*. In this experiment we have had a transport of the *negative ion* K towards the cathode, and a transport of the *positive ion* SO_4 towards the anode.—(*Bordier, Physique Biologique*.)

Matter is an agglomeration of very minute particles called *molecules*. Each molecule is a complete entity remaining unaltered whether the substances in the solid, liquid or gaseous state. We know from *Avogadro's* law that all gases, whatever their nature, will, at the same temperature and pressure, contain the same number of molecules per unit volume. In the same way all solutions, whatever the nature of solute and of solvent, will at the same temperature and osmotic, contain the same number of dissolved molecules per unit volume.—(*Pfeffer, de Vries, Van t'Hoff*.)—These two laws, relating to gases and substances in solution demonstrate the individuality of the molecule or primitive particle of matter. This particle is indivisible so long as the substance retains its identity, but it may be split up into its consistent elements.

The *molecule* of NaCl, for instance, cannot be divided without destroying the chloride of sodium as a salt. It can, however, be split up into an *atom* of Na and an atom of Cl. An *atom* is usually considered the last possible division of matter, but it would seem to be very probable that the *atoms themselves are further divisible*. Their differences in specific weight and specific heat lead us to believe that each atom is an agglomeration of a certain number of centres of energy, the so-called *electrons of Laurenz*.

We are further taught by *Guilleminot* that in dilute electrolytic solutions the molecule of the solute is dissociated into two *ions*, each acting as a *molecule* in its osmotic, cryoscopic and tonometric relations. "When

the molecule breaks up into ions, each ion carries an equal and opposite electric charge; but as soon as they have lost their electric charges they return to their role of chemical elements, with chemical affinities, and attack the water or the electrode, according to the ordinary chemical laws."—(*Electricity in Medicine.*)

Homoeopathic Conceptions.—Michael Granier, in his *Conference on Homoeopathy*, makes the following statements: 1. "As we employ as medicines, almost all the substances furnished by the three kingdoms of nature, and as some of them considered inert, must be divested of their material envelope, in order to acquire some therapeutic action (*Lycopodium, Silicia, Sepia, Carbonate of Lime*, etc.), we certainly are compelled, if we wish to employ them in a fluid state, to develop in each its specific fluid, and this is accomplished by freeing them from their grosser particles, in separating their constitutive atoms, and finally submitting them to a division, approaching more or less to the limits of the fluidic domain."

2.—The process by which bodies are submitted to these changes of state, and by which their particular fluid is developed, is called *dynamisation*.

3.—In all these new states, acquired by physical and chemical manipulation, what does the material substance become, in whatever weight or volume it may appear? It becomes nothing less than the vehicle of new specific properties. Cuvier said: "*Matter is only the depository of power; matter passes away, but power remains.*" By what right then does any one, starting from any given degree of the *active* divisibility of matter, stop at any degree, and say, "So far shalt thou go; this is the limit of its possible action?"

4.—He points out three kinds of *dynamisations*; one *artificial*, another, *physiological*, the other *natural*. To the *first* we owe our medicinal dilutions; the *third* is that which produces miasmata, effluvia, etc., and the elements of mineral waters; and the *second*, the one which carries on that series of mysterious operations, which make material elements submit to the most unknown transformations, and which will always evade our experimental analysis. All the medicinal substances which are administered to any one, whether in a state of health or disease, at first go into one common receptacle—the stomach. This organ is the crucible in which all physiological changes begin. It is the minister charged with transmitting all orders from the sovereign to his subjects.

From this receptacle, called by physiology *prima via*, substances pass into other channels, which are ramified *ad infinitum*, and whose calibre constantly decreases in size. Follow these substances in their physiological progress, until you can no longer detect them, and then you will reach the *secundae viae*. These different ways are already obscure enough, but your torch will certainly be extinguished, if you venture to step into the cave of the *tres viae*. Stop at the threshold of this mystery, or curiosity may here lead you too far astray.—(*Gravier, Conferences upon Homoeopathy*, 1859.)

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MULTIPLE SEPTIC INFARCTS OF THE KIDNEY. NEPHRECTOMY.

BY

WILLIAM FRANCIS HONAN, M. D., NEW YORK.

(Read before S. and G. Society of the American Institute of Homœopathy
Narragansett Pier, June 27th 1911.)

I AM encouraged to report an interesting, though single case, in the hope that the discussion which I trust will follow, might lead to a comparison of experiences, to a better understanding of pathology and particularly an appreciation of a condition apparently not diagnosed early as one requiring surgical intervention.

Escherich in 1894, pointed out the frequent occurrence of cystitis, particularly in female children, and that the bacterium coli either alone or in mixed infection was present in 58 out of 60 cases which he examined. This observation was confirmed by Finkelstein, Trump, and others. Other bacteria observed in this condition were the gonococcus, bacillus of diphtheria, the bacillus of tuberculosis and the bacillus pyocyaneus.

Krogius describes a "bacteriuria" in which a large number of bacteria may appear in the urine so as to make it look like a bouillon culture. The urine has a vapid smell, acid reaction, without the symptoms of inflammation in the genito-urinary mucus membrane. The bladder mucus membrane does not always react with inflammation to entering germs.

This, of course, depends upon the degree of resistance of the mucus tissue to the attack of the invading organisms. The

genito-urinary tract may harbor without apparent harm to itself, numerous micro-organisms for a long period of time. When at an unexpected moment the index of resistance, perhaps in the presence of a simple acute disease, will fall to such a level that an apparent innocuous intruder becomes an agent of destruction. The pathology of lesions of the kidney for a proper clinical understanding needs much revision as to classification and nomenclature. The present day divisions, multitudinous in number, as are the writers on the subject, are, to say the least confusing. The classification does not necessarily indicate either pathology or etiology of the condition indicated.

The so-called acute nephritis, usually considered congestive or inflammatory, shows pathological states ranging from hyperæmia, hemorrhagic inflammations, alteration of the renal parenchyma, swelling, fatty degeneration, shedding of the renal epithelium, exudations containing micro-organisms, venous thrombosis and bacterial emboli. All of these conditions may be included in the pathology of an acute nephritis. Where does inflammation begin and end, and what part does bacterial infection play in these changes? Heubner, a man of large experience, being unable to arrive at a proper classification, puts many cases in the doubtful class. We are dealing in this instance, the case I am to report, with an infection of the kidney, probably an ascending one, and very probably a coli infection starting from the bladder. That infraction and suppuration of the kidney may arise from an external wound, extension from a septic focus in the neighborhood, an ascending process from the bladder and lower urinary tract, as well as from the circulatory blood, all authorities seemed agreed.

In the blood the infecting organisms may be various, the bacillus of typhoid, pneumococcus, streptococcus, straphylococcus and others. They may arise from absorption from the intestinal canal and from acute infectious diseases. Wreden believes that the mode of infection is from wandering coli bacilli from the intestinal tracts, the intestinal epithelium being destroyed by natural or artificial means. Extension of infection through the ureter often produces a secondary pyelitis. This is observed in typhoid fever, surely. It may be unscientific, but the picture of the kidney filtering toxins from the blood, and allowing its delicate tissues to be injured thereby or micro-organisms from the circulatory medium finding an atrium of infection in some weak spot in its parenchyma and

destroying renal tissue might roughly indicate the two principal causative factors.

The literature of the subject refers to pyelo-nephritis, suppurative nephritis, and abscess of the kidney to represent these stages.

As a rule, however, extensive destruction of tissue often results before the gravity of the condition is recognized, and often when the patient is profoundly septic. The diagnosis of surgical kidney is often made probably to indicate the period when the internist refers the case to his surgical confrere. This is paralleled by the history of appendicitis. The acute and sub-acute attacks were treated as colics and bilious seizures. In the past the condition was only recognized as surgical when there veritably was a "surgical appendix," and a surgical condition to deal with.

This was generally associated with abscess or gangrene. But now, by a gradual process, we are beginning, as a profession, to appreciate and understand infections found in certain organs of the human body and from deduction, a rational line of treatment based on pathological findings. Custom and tradition, as well as general and common consent allotted to the internist a dominion over certain regions and organs of the body, the invasion of which by surgical methods was not to be considered.

So also certain organs, which while admittedly might take on a condition requiring surgical relief, those occasions were rare and only to be thought of as a last resort. As showing an evolution from expectant to operative treatment, consider the appendix, gall bladder, Fallopian tubes, ovaries, thyroid gland, and occasionally the spleen and pancreas. In the case of the kidney, if there were a palpable neoplasm calculus, abscess, or an extreme degree of mobility, of course, surgical intervention was indicated. It is, however, to a more or less insidious process which might apparently yield to expectant treatment, just as an infection of the appendix or gall bladder might temporarily subside, only to burst forth with fulminating virulence that I desire to invite your consideration.

E. B., aet. 5, had a mild attack of measles at two months of age, and broncho-pneumonia of a severe type at one year and three months. She fully recovered from these conditions and apparently became a thriving child. At five years of age, following a mild attack of grip, it was noticed that she complained

of painful micturition before, during and after the act. The urine showed alkalinity, a large amount of mucus, but apparently no other definite findings. This attack lasted only a short time and from which she apparently recovered, only to have mild exacerbations during the following year, with mucus and sediment in the urine, but no albumen or pus, nor did she complain of pain. The presence of coli bacillus was noted in frequent examinations of the urine. Last November she had a mild attack of broncho pneumonia, of grippal origin, following which the urinary examination showed a feebly acid urine, pus, mucus, and abundant coli bacteria. Under a rigid dietary, appropriate remedies, including urinary antiseptics, the urine became more acid, the pus disappeared, but the coli bacillus remained.

In February, after an exposure to dampness, she had a severe chill, followed by a temperature of 105.2, pulse 140. This was accompanied by a nausea vomiting, severe frontal headache, pain in the left side, in the upper left quadrant of the abdomen. With this there was rigidity of the left rectus muscle, and a spot of exquisite tenderness. This condition of elevation of temperature and pulse continued, the temperature reaching a maximum of 106 on the third day. The urinary examination during the first twenty-four hours of this attack showed a trace of albumen, and occasional hyaline cast, and multitudes of coli bacillus. Physical examination in addition to the symptoms noted showed that the sensitive spot reacted somewhat like McBurney's point in an acute appendicitis. The knees were drawn up, particularly the left, and could only be straightened by careful extension and considerable coaxing. The tongue was coated and the child seemed to be suffering from a severe toxæmia. Palpation of the kidney was negative on account of extreme rigidity of the muscles and the pain produced by manipulation. The question was considered of ureteral catheterization or radiograph. Radiograph was decided upon, and while stone had not been considered suspicious, shadows in the resulting radiograph seemed to indicate an exploratory operation over the kidney, and the condition of the child rendered it imperative. On the day of my examination the urinary report was as follows:

Reaction, neutral.

Specific gravity, 1015.

Albumin, faint trace.

Sugar, absent.

Indican, absent.

Diacetic, absent.

Microscopic: Many pus cells and epithelial cells.

Blood examination:

White cells, 19,000. Polynuclear neutrophiles, 68 per cent.

Lymphocytes, 30 per cent.

Eosinophiles, 2 per cent.

(The normal percentage of neutrophiles at seven years is about 53 per cent.)

After careful analysis of the history and present condition, the blood and urinary findings, the suspicious shadows in the radiograph, of the affected side, seemed unquestionably to warrant radical surgical measures, and the case was operated on the following day, the fifth day of the attack.

The kidney was reached by an oblique lunar incision. The fatty capsule was oedematous, the kidney enlarged, of a deep purplish black appearance, with darker areas here and there. On section or tearing a bloody serum was exuded with more or less necrotic tissue. The renal vessels were ligated, the ureter carefully separated from the vessels and cut as low as possible to ligate, and the stump seared with the actual cautery. So far as naked eye appearances could be depended upon no pathological changes could be observed in the ureter. The temperature fell to normal and practically remained so during an uneventful convalescence. The first twenty hours the total urinary output was about 10 oz. This gradually increased to about 25 to 30, when it remained about the same. Had this condition been right-sided, the question of diagnosis would have been attended with many difficulties. So far as physical examination is concerned, it would have been easy to have confounded the condition with appendicitis, inflammation of the gall bladder, spinal caries, ureteral calculus. A somewhat similar condition may be sometimes found in pneumonia and pleurisy of children. Four months have elapsed since the operation, during which time the little patient has not developed a single untoward symptom, has gained in flesh, strength, and apparently growing into a splendid healthy child. Brewer, in a recent article including two cases of Blake's, reports thirteen cases of septic infraction, all adults but one, seven died after operation, though at least two were in extremis when seen by

them. Four were opened and drained, and but one recovered after a tedious convalescence. Of the seven cases in which nephrectomy was done, only one died. One case was that of a young child in the period of desquamation of scarlet fever. All of his cases were unilateral and, and he makes a strong plea for early recognition and prompt operation. The report of the pathological finding which were very carefully made by Dr. D. S. Jessup, is as follows:

March 24, 1911.

Kidney removed by Dr. William F. Honan,

Path. No. H. H. 1082.

Kidney measures 11x5.5x3.5 cm. Surface shows about ten dark, rounded elevations with yellowish areas in them. On section these correspond to wedge-shaped areas of congestion with yellowish centers. Pelvis does not show any changes except congestion.

Microscopical examination:

Sections through wedge-shaped areas show a central area of necrotic tissue infiltrated by leucocytes, and a lateral zone of congestion. The structure of the tubules and tufts is lost. Between the wedges the tubule cells are somewhat swollen, and there is some round cell infiltration.

Diagnosis: Multiple infarcts of kidney.

CHEMICAL PROBLEMS REFERRED TO PHYSICIANS.

BY

WILLIAM A. PEARSON, PH. G., PH. D.

A lecture given before the visiting alumni at the Hahnemann Medical College, May 30, 1911, by William A. Pearson, Ph. G., Ph. D., Professor of Chemistry and Toxicology.

MANY chemical problems are referred to physicians. It is natural that the public should expect the physician to advise them on such subjects.

To the average practicing physician, chemistry means but a course of didactic instruction hurriedly given in the freshman year, which was passed at the proper time, and long since forgotten, especially after bacteriology, histology, anatomy and pathology had reposed for a time in the same brain structure, and in turn had been largely crowded out by internal medicine,

regional anatomy, therapeutics, surgery, dermatology, gynecology, obstetrics, and ophthalmology. The details of these salient, practical subjects may have been also crowded out with professional cares, or possibly by political, financial or social aspirations.

No apologies are necessary for the busy, competent, and successful physician, because he does not remember the details of the abbreviated course in chemistry he took years ago; even if he did, he would find himself hopelessly behind the times, for chemistry has expanded to such an enormous extent that it is now physically impossible for one man to read, digest, put into practice, and pass judgment upon all the original research that is presented. Ten thousand pages of intricate original work is presented each year on organic chemistry alone. An index of the more important chemical researches last year required 713 pages of closely printed matter. 3,314 pages are necessary to give a brief abstract of all the important investigations made last year.

It is therefore evident that the practicing physician with his interests divided in a hundred other subjects should not be expected to know the solution of every chemical problem that may be referred to him.

That he gives wise and competent advice in the vast majority of cases cannot be denied, yet he is not infallible, and like other men, sometimes allows himself to "take a chance" on explaining the problem. Ridiculous as it may seem, a physician actually made a diagnosis of lead poisoning because the patient had a habit of sucking a lead pencil. This is an extreme case, yet many erroneous ideas are promulgated by the inability of the physician, his lack of frankness, or his unreliable information.

To a few popular and professional chemical problems I will ask your attention.

Purity of Olive Oil.—The idea is prevalent that most olive oil is largely or wholly cottonseed oil. It is true, that it is not all the finest flavor or equally desirable, but the number of samples actually adulterated with cottonseed oil is remarkably small. Bottles are much more liable to be short measure or the oil expressed from inferior olives.

Sodium Benzoate as a Food Preservative.—For a few years the subject of the preservation of foods has received considerable attention. The main dispute has been in regard to whether

sodium benzoate was or was not harmful when used as a preservative. Strong arguments were presented in both sides and chemists were divided into the "Benzoates" and "Anti-Benzoates." The government chemists (Anti-Benzoates), presented the first detailed scientific evidence in a book of 251 pages and weighing nearly one pound; to be accurate 446.9 Gm. The following year the referee board which turned out to be "Benzoates," published their detailed report of 761 pages and weighing over two pounds, in fact 1136.7 Gm.

You can see that I have weighed the main evidence on both sides, and you know that at present the "Benzoates" are in the lead, about to the same extent as the difference in weight of the reports indicate.

The "Anti-Benzoates," of course, had the disadvantage of showing their hand first and gave the "Benzoates" a chance to know how large a report to submit to score a victory. Incidentally, the "Benzoates" received \$300,000 for their work, while the salaries of the government chemists did not amount to quite that much. This problem is similar to the case of Perry versus Cook. Perry left more flags at the pole than Cook, but he had the advantage of knowing how many Cook said he left before telling his story.

One of the strongest arguments brought out against the use of sodium benzoate is that it enables manufacturers to market products that could not otherwise be sold. This is only partly true. You all know that if any product is sterilized and hermetically sealed, it will not putrify if kept indefinitely, and that any product, no matter how filthy, can be marketed in this way.

It has been shown by the government chemists, and more forcibly by several manufacturers, that the food can be marketed to good advantage without the use of sodium benzoate.

It is a personal question at present, although few intelligent people would prefer to eat foods preserved with sodium benzoate when they can obtain a similar product without it for the same price. For the latter reason, it is not unreasonable to expect that the problem will eventually solve itself by the advertising campaign of the manufacturers who do not use benzoate.

Sulphites as Food Preservatives.—Another food preservative of disputed harmfulness is sulphur dioxide. The subject of sulphur dioxide in gelatine has been recently considered in detail. Men who are not aware of the difficulties encountered

in the manufacture of gelatine have condemned its use unpromisingly. Gelatine is, as you know, very prone to bacterial invasion and manufacturers usually add sulphites to protect the product during the process of manufacture, and also for the purpose of bleaching. It is a fact that some of the highest priced gelatine especially prized for use in culture media, contains considerable quantities of sulphites, which may seriously interfere with the growth of micro-organisms when used for making culture media. One of the most sanguine men against the use of sulphites in gelatin was elated when told that one brand did not contain any sulphites. He said this proved conclusively that it could be made without sulphites. One week later, the government seized a large shipment of this brand because it had undergone putrefaction.

Here seems to be one product where the use of preservatives is justifiable, and even the most rabid against its use, would not object to eating ice cream containing a small portion of gelatine, or taking a gelatine capsule, even if he knew the gelatine contained a trace of sulphites.

The Chemistry of Foods.—The chemistry of foods and the proportion of each food stuff best adopted for replenishing the body waste, building new tissue, and supplying heat and energy is a problem of the greatest importance and one that should receive the careful attention of not only the physician, but every intelligent person. 90,000,000 people in the United States are spending the greater part of their time earning food products, yet comparatively few plan their diet by scientific methods.

Protein is the most expensive food stuff and is indispensable for renewing waste tissue, yet most of us eat three times more protein than we actually need. There is twenty times enough protein to supply our needs in the sea that is not used for marine life.

Will we continue to spend our lives laboring for food, when a scientific eating would permit us to live on one-third the amount we now eat?

Will our great grand-children live in luxury without working, and laugh at our ignorance in not using what nature intended for us?

Aesthetic, Mental and Psychological Influence on Food Problems.—The æsthetic, mental and psychological factor comes into the food problem, and indeed in this day it enters into every crevice of our lives. To illustrate, let me say that a

few years ago an artificial butter was made from petrolatum. It looked like butter, it smelled like butter, it tasted like butter. Its manufacture was not permitted, because it was not capable of nourishing the body or furnishing heat or energy, and it could not be sold as a food product. The manufacturers could have sold this product as axle grease, but the psychologic factor would not permit. Our æsthetic nature would rebel against going into a hardware store and purchasing axle grease to spread on our bread. Suppose this product was in common use, how would it affect the poor people? They would save at least twenty cents a pound on this butter and probably more of them could pay their doctor bills. What would be lost? Simply the energy that would be supplied by butter fat, an amount equivalent to a few cents worth of cottonseed oil.

Now be frank, do you spread butter on your bread only because you want the energy from that butter? Of course you do not, it is because it pleases your palate.

Where Shall We Obtain Cheap Food?—Granted that we are sincere when we say that we do not live to eat, but eat to live, where shall we find the cheapest foods that will properly nourish the body? Five kinds of foods are absolutely indispensable: water, mineral matter, carbohydrates, fats and proteins. The first two may be dismissed at once as their price is never prohibitive. Carbohydrates are also quite cheap. Sugar at five cents a pound is very cheap food. Carbohydrates from cereals are even cheaper. Fats like butter are quite expensive, yet as much energy can be obtained from an equal weight of cottonseed oil or oleomargarine. Many other fats can be obtained cheaply. Carbohydrates can be transformed into fat by the metabolism, and hence the amount of fat ingested can be diminished by increasing carbohydrates. Proteins are by far the most expensive essential food elements, yet if care is shown in their selection and only sufficient protein eaten to keep the body above nitrogen equilibrium, that is, slightly more protein nitrogen ingested than total nitrogen eliminated, the cost of living will be reduced. Protein obtained from porterhouse steak at 30 cents per pound is extravagant when the same amount of protein can be obtained from 10 cents worth of beans.

I do not apologize for presenting this chemical problem to you as economic living depends upon its solution. I would like to impress upon your minds also that the average person

eats about twice the amount of food elements actually required for keeping the body in health and to provide for necessary heat and energy.

Artificial Flavors and Colors.—Much might be said about artificial flavors and colors. It is a fact, that considerable amounts of both are used. Artificial flavors are made by the blending of organic compounds known as esters to resemble the natural flavor. It has never been conclusively shown that artificial flavors are harmful, although most of us would prefer to have nature prepare these esters rather than have them synthetically prepared for us in the chemical laboratory. The use of seven coal tar colors has been provisionally permitted by the government. Any color of the rainbow can be obtained by mixing these colors.

Physiological and Clinical Chemistry.—Chemistry is in much closer relation to your routine work than the above problems of a popular nature might indicate. Many problems of a clinical nature can be easily solved by simple qualitative and quantitative tests. In the hope that you will use these chemical tests more frequently, I wish to mention and illustrate a few important points in the examination of urine, gastric contents, feces and milk.

Urine Analysis.—Urine analysis to-day means more than it did even five years ago, and will be of still greater diagnostic value five years from now. Modern urine analysis does not consist in looking at a specimen passed at some indefinite period, noting color and odor, inaccurately obtaining the specific gravity and making hurried tests for sugar and albumin. Here we have the final products of metabolism and an intimate knowledge of the composition frequently indicates the precise condition of the patient. Abnormal changes which have taken place in many vital processes may be detected and intelligently corrected. It is only fair to state that the intricate chemistry of all the metabolic changes is not well understood. However, more is known than many imagine. Of prime importance is the proper collection of the sample. A twenty-four hour sample should be insisted upon because of the considerable variation in the composition at different times of day. A gallon bottle should be obtained and well cleaned; sterilization is better. Dry and pour in about half an ounce of a saturated alcoholic solution of thymol. Shake, invert and let drain. Crystals of thymol will form on the surface within the bottle. Collect

the urine in bottle and keep cold in ice chest. Examine promptly. Specific gravity should always be taken at the uniform temperature of 25° C. A sample should be put in 16 mm. test tube and compared with a color chart. Hypobromite solution must be fresh for urea estimation. A convenient quantity of fresh hypobromite solution can be easily made by putting 5 c.c. of bromine in a cylinder, adding 50 c.c. of cold 40 per cent. solution of sodium hydrate and after mixing, adding water to 100 cubic centimeters and again mixing. Remember that it is better to distill for the acetone tests. Sugar is most easily estimated by polariscope, the most reliable identification test is the phenylhydrazen test, using microscope to identify crystals of phenylglucosazon. Estimation of phosphates, chlorides and acidity is frequently important.

Gastric Analysis.—It is a great regret that the general medical practitioner does not more frequently examine the stomach contents. A valuable opportunity is often lost to practice scientific medicine. The detection of free hydrochloric or lactic acid and the estimation by Topfer's method of total acidity free and combined hydrochloric acid is not at all difficult and is of considerable diagnostic importance.

Feces.—The systematic examination of feces is not frequently enough practiced. The importance of the detection of intestinal parasites or their ova is not denied, yet the presence of blood is often of greater importance. This test is not difficult to perform.

Milk.—To what extent a physician should make chemical examinations of milk is questionable. Sanitation, storage and marketing are of such vital importance in milk supply that they quite overshadow the benefits that are to be obtained from a chemical analysis, although there are frequent cases when the improper percentage composition of milk is entirely responsible for the failure in nourishing babies.

The test for the presence of formaldehyde usually is unnecessary, as only one sample in 1,000 contains added preservatives. Milk may, however, be greatly deficient in fat content and the percentage of proteins may vary in wide limits. The bioscope or Fesor lactoscope are convenient instruments for the rapid estimation of fat. The new rapid titration method using formaldehyde is recommended for clinical work.

Other Chemical Problems.—There are many more chemical problems that confront the physician. In medical litera-

ture the chemistry of the products used is coming more and more into vogue. All of you remember the first time you saw the somewhat formidable chemical name dioxydiamidoarsenobenzol di hydrochloride. No other word expresses the exact chemical composition of this era producing cure of syphilis. Other examples of chemical names in common use are acetanilide, trichloroacetic acid, trichlormethane, trichloraldehyde, ethyl alcohol, acetylsalicylic acid, ethyl carbonate, ethyl chloride, benzaldehyde, methyl salicylate, benzosulphinide, morphine diacetyl and hexamethylenetetramine show instantly their chemical composition, and permit of a scientific classification.

Chemotherapy.—Without a doubt, the importance of chemistry to the practicing physician is increasing at a tremendous rate, and Ehrlich's recent triumph is but a forerunner of what will follow.

Medicine is rapidly becoming less of an art and more of a science. It is undoubtedly true that the different organic groups comprising the molecules of chemical substances have a special selective action upon certain living cells and as time progresses and these chemical reactions, between the drug and the living cells are better understood, medicine will become ultimately an exact science. The spirit of scientific research will lead the way the practitioner will follow.

The theory of to-day becomes the working tool of to-morrow and just as Hahnemann laid the theoretic foundation of homœopathy for your actual use to-day, so is the scientific investigator laying the foundation to-day for a still more rational and scientific practice to-morrow.

CHORIOEPITHELIOMA.—Caturani says there is a relative frequency of this disease among the poorer classes of people who are less apt to seriously regard the predisposing causes, such as incomplete abortion and the passing of moles. For the same reason, these cases must be more common than the statistics would lead us to believe. They seem to occur more frequently after the expulsion of moles than after normal labor. When a pathologic examination is doubtful, we should be guided by the clinical course and history as to operative interference. The character of malignancy is greater after labor. Prophylaxis is of great importance, and we should cure all cases after expulsion of moles, as the cells imbedded in the tissues in one of his cases developed the malignant disease after five years, and in another case a thorough and early curettage might have prevented the development of malignancy, considering its slow development.—*Amer. Jr. Obs.*, Vol. 63, 614.

SOME UTERINE REFLEXES.

BY

WILLIAM ERWIN, A. M., M. D., PHILADELPHIA.

THE real cause of sympathetic or reflex suffering in the human body was for a long time unaccounted for, but on careful consideration is readily understood.

Reflex action may be of either central or peripheral origin. When of central origin the cause is usually a strong emotion, as of fear causing pallor of the countenance by contraction of the vaso-motor nerves of the blood vessels of the face, or of shame, causing the opposite condition, a relaxation of these same vaso-motor nerves, as seen in blushing. When of peripheral origin the cause is usually found in some local pathology.

Because of their greater frequency and persistence, and usually with less or no disposition at all to self limitation or self recovery it is in the latter class that we are most interested.

The manner of production of a reflex disturbance of peripheral origin, is by transmission of the producing impulse along nerves of the sympathetic nervous system, from the point of irritation to some more central point in a sympathetic plexus, or it may be carried all the way to the brain before its ill effects are established.

Sensory nerves, branches from the cerebro-spinal nervous system, are found in every part of the body, but least abundantly in the internal portions. It is also these internal or deep-seated parts that are governed chiefly by the sympathetic nervous system, and hence have a comparatively limited power of sensory suffering, and hence their expression of suffering is less by pain than by a reflex or sympathetic disturbance in some distant part of the body, which is practically a transference or metastasis to that part.

This entire subject is too comprehensive for discussion in a brief paper like this, therefore it is intended to consider only one of its branches, that one arising in the female pelvic organs, and we shall take time for only a few of these.

The backache, headache, and general lassitude produced by uterine congestion, displacement, and ulceration, are familiar to us all. The nausea and vomiting of the early months of

pregnancy are equally well known, wherein the irritation produced by the physiological development of the uterus is reflected to the solar plexus and finds expression in nausea, vomiting, capricious appetite, abnormal cravings, etc. The flushes of heat, confusion of ideas, palpitation and irregular action of the heart incident to the climacteric period, are merely expressions of the sympathetic nervous system in its struggle to adjust the new physical balance, upon the cessation of a bodily habit of thirty years' duration, of a monthly cycle now to be abolished.

The reflex discomforts attendant upon pelvic congestion, uterine displacement, etc., are relieved only by curing the cause. The morning sickness of early pregnancy is greatly lessened and often entirely controlled by careful selection and administration of the homœopathic remedy, until further uterine development surely removes it. It may be incidentally noticed that the revolutionary changes resulting from a pregnancy and parturition usually suffice to cure dysmenorrhœa in young women that has been invulnerable to all other measures.

The reflexes of the menopause are either amenable to the action of the properly chosen homœopathic remedy, or usually disappear soon after the cessation of the menstrual habit.

There is still a very important class of cases of reflex origin not yet mentioned. These are the cases arising from cervical lacerations during confinement. Probably a large majority of women who have borne children have suffered some degree of cervical laceration. Why only a small proportion of them suffer in consequence was a problem to me for a long time, and I do not claim even now to have fully satisfied myself of the reason why still others seem to suffer no inconvenience therefrom until the approach of the climaxis, unless it be that the nervous system being then more susceptible takes notice of an otherwise neglected cause of irritation.

My explanation of the ill effects of a cervical laceration is as follows: The fibres of a nerve are nearly the most fragile substance found in the body, but the enurilemma or nerve sheath is far more dense and resistant. When the cervix is torn by the stretching incident to the passage of the fetus, its minute nerves are stretched in proportion. Some are broken off and thus escape subsequent trouble; others are pulled out some distance before they break, like the roots of a tree that is uprooted by the wind. The pulled out nervelets dangle in the

wound, and we can thus easily understand how and why an unhealed laceration may produce great mischief. Muscular tissue under favorable conditions will unite in from two to six days, and doubtless the great majority of these lacerations heal within this period. Directly after expulsion of the products of conception the uterus is about as large as an infant's head, and involution requires about six weeks to restore the uterus to its former size of 2 3-4 inches in length, and a weight of 1 1-2 to 2 ounces. Since the laceration has healed when involution is only about one-seventh complete, the squeezing of any nervelets caught in the contracting cicatrix and permanently held as in a vice, may easily account for all of the ill results of even a healed laceration found in many cases.

The perineum does not pass through a period of involution as does the uterus, hence perineal lacerations do not produce reflex disturbances, except as unhealed perineal lacerations favor displacements, which in turn do cause them.

Just why a cervical laceration may in one woman affect reflexly one part of the body, and in another some other part is still unexplained. Lacerations being of a purely mechanical nature are not amenable to medical treatment, but may be cured only by resort to surgery.

An unhealed cervical laceration soon forms an imperfect covering of the raw surfaces by a rudimentary cicatricial membrane more or less studded by granulations. In this case the operation consists in freshening these raw surfaces by excising all of the cicatricial and granulation tissue, and uniting the opposed surfaces by sutures. In the case of a healed laceration, every atom of cicatricial tissue must be excised for the purpose of making sure that all imprisoned nerves are removed, when the opposed surfaces are sutured together.

It is really astonishing to witness how quickly the nerve centres take knowledge of a wrong thus righted, as a few illustrative cases will demonstrate:

Mrs. C. M. C., mother of one child six years of age, suffered a very deep laceration of the cervix upon the right side. She had been a patient of the late Prof. Skeene, and had been in the private hospital of Prof. Emmett. She had raised small quantities of blood from her stomach many times a day ever since her confinement. I repaired the laceration, and while I expected this to cure her, I was amazed to see that the gagging

during recovery from the anæsthetic brought up no blood. The cure dated from the very hour of the operation.

Mrs. J. C., mother of three children, slept and ate wretchedly, was very much emaciated, and mildly insane. No lesion being found in any of the vital organs, the pelvic organs were examined, and a cicatrix found where a cervical laceration had healed. This was all that could be found, and when this scar was excised and the parts united by sutures, her mind recovered its balance within 48 hours. From this beginning she went on to a steady recovery of health, which was complete in about six months, at which time she weighed more than ever before.

Mrs. T. A., mother of two children, had suffered a cervical laceration, and from the date of her last confinement developed epileptiform seizures, occurring from two to a dozen times a week. After repairing the laceration she had one attack on the eighth day of convalescence, after which time the cure was complete. After about eighteen months she gave birth to another child, and suffered a recurrence of the epileptiform attacks. A fresh laceration was found and repaired, with the result that the attacks became far less frequent and very mild in comparison with the former condition, and in about a year had disappeared. It should be noted that her father developed senile epilepsy which terminated his life.

Mrs. H. N. had one child a few months of age, I think about six months, when she developed a pronounced mental derangement and formed the habit of masturbation. A cervical laceration was repaired in the usual way and within twenty-four hours her mind had cleared up entirely. All went well for about ten days, when she suffered a relapse of mental symptoms. This continued for three or four weeks, when it disappeared and full recovery of excellent health followed, with no evidence of mental weakness.

Mrs. J. T. C. during the puerperal period of a former confinement showed some peculiar mental symptoms which her family excused, and which soon almost but not entirely disappeared. Two weeks before her next confinement was expected

she suddenly became violently insane without apparent cause, and made a determined attempt at suicide which was nearly successful. She was placed in the State Asylum of New Jersey at Trenton, where the child was born. After eight months her husband took her home on trial, but it soon became evident that her mind was decidedly unbalanced, and her husband feared that she might either kill herself or her child. At this stage I was called and found a bad cervical laceration, which was repaired in the usual way. For the first twenty hours following the operation she was noisy, then she became quiet and entirely rational and remained so. Within three or four months her weight was fully restored, and she was as well and happy in her home as any one could wish.

ACUTE CATARRHAL CONJUNCTIVITIS.

BY

PERCY A. TYNDALL, M. D.

(Read before the Homœopathic Medical Society of the County of Philadelphia.)

DURING the passed winter there occurred a mild epidemic of acute catarrhal conjunctivitis, or as it is commonly called by the laity "pink eye." The carelessness with which so many of these cases are handled, especially among members of the same family, even occasionally by the attending physician, impressed me so that I thought a few words on the subject might not be amiss.

As you all know there are several forms of acute conjunctivitis, but I wish to particularly call your attention to the character of the acute contagious form, that caused by a definite micro-organism and having a definite period of incubation.

The most frequent causes of the condition are the pneumococcus and the Koch-Weeks bacillus. Most authorities seem to agree that the majority of cases are due to the pneumococcus, frequently the Koch-Weeks bacillus appearing only in a comparatively few cases. But Pollock in a communication to the *British Medical Journal*, in a bacteriological examination of one hundred and forty-five cases of acute muco-purulent conjunctivitis found the Koch-Weeks bacillus in one hundred and eight of these cases—seven were due to the Morax bacillus

and only one to the pneumococcus—two to the gonococcus and six to the staphylococcus aureus.

We have had quite a number of cases of acute conjunctivitis in our dispensary service lately and rather frequent in private work.

The condition starts with a sense of irritation in the eyes as though caused by a foreign body, with general hyperæmia of the whole eye and with more or less prominence to the conjunctival vessels, the congestion at this time particularly showing itself on the palpebral surface. In the course of a few hours or a day the injection increases and considerable engorgement of the bulbar vessels occurs—the coarse large vessels showing themselves very distinctly and fading away as they reach the corneal limbus. At this stage there is considerable lacrymation which shortly changes to a thick yellow mucopurulent discharge, which accumulates in the lower cul-de-sac and at the inner canthus and the patient frequently complains of blurred vision because of the presence of this discharge on the cornea. The eyelids are red, often œdematous and the discharge may exude from between the closed lids. It is at this stage that the condition is particularly contagious and in the present series of cases it has been practically impossible to confine the condition to one eye.

At about the third day of the disease the other eye becomes involved, seldom both eyes becoming involved at the same time. The conjunctival vessels may become so engorged and the serous exudate beneath the conjunctiva may be so great as to produce a circular swelling around the cornea—chemosis—and when the condition assumes such proportions we are assuming considerable risk as regards treatment unless a microscopical examination is made and we know that it is not a gonococcic infection. In treating such cases it is a big relief to know just what form of infection we have to combat. As far as subjective sensations are concerned there is very little pain, more a discomfort from the swelling and the formation of the discharge which agglutinates the lids and renders the eyelashes stiff. In a case of acute catarrhal conjunctivitis when severe pain develops we may feel quite sure that a complication has set in, in all probability an ulcer of the cornea presents itself or an iritis is present. Fortunately these complications are rare, but when present are serious complications as corneal and iritic conditions always are.

Every case treated in the past few weeks with the exception of one occurred in adults, the exception being a child under two years of age.

In every case both eyes were involved, but an interesting feature was that where the same treatment was instituted for the yet unaffected eye, as was used in the active condition, the second eye was only lightly involved in the majority of cases and was frequently cleared up before the first eye. When we waited for symptoms to develop in the second eye the condition was usually as severe as in the first.

As before stated the most frequent causes of this condition are the pneumococcus and the Kochs-Weeks bacillus, and the pneumococcic infection is generally regarded as the most frequent. I regret that I did not make a bacteriological examination of every case in our series, but in the few that were done the Kochs-Weeks was the only one found. It would have been interesting to know if most of the cases were of this kind of infection for then it would have some statistical bearing as to the etiology of the present epidemic.

The same treatment was followed in practically every case and that was flushing the eye frequently with boric acid solution or as often as is necessary to keep the eye free from discharge and then followed by the instillation of several drops of one of the newer silver preparations—Cargentos—three or four times a day. The efficiency of the silver solution I am inclined to believe in, for though the first eye apparently followed the typical course, probably moderated to some extent, the second eye was seldom as severe as when only a boric acid solution was used. De Schweinitz has cast a doubt over the efficiency of any of these newer silver preparations and without a doubt he is right in placing main dependence upon nitrate of silver, but I desired to try this new solution and as above stated it seemed to have a retarding influence upon the invasion of the second eye. There were practically no corneal complications and such is the case as a rule when the infection is due to the pneumococcus or the Kochs-Weeks bacillus, although Brewerton in a communication to the *Lancet* places some stress upon the possible ability of the Kochs-Weeks bacillus to cause some corneal ulceration. He states that he believes from his investigations that the ability of the bacteria to infect the cornea rank as follows—first, streptococcus; second, gonococcus; third, staphylococcus aureus; fourth, diphtheria bacil-

lus; fifth, the Weeks bacillus, and sixth the staphylococcus albus.

In only one of our cases was the condition of rather long duration, that is longer than a week or ten days, and this case presented all the symptoms of what is termed an angular conjunctivitis after the first symptoms of intense injection subsided. This condition is so called because the area of injection was particularly marked in the region of each canthus and is due to the Moraxenfeld diplo-bacillus. This case resisted the ordinary forms of treatment and assumed a sub-acute condition which persisted for two or three weeks, when the sulphate of zinc solution was used with almost immediate improvement.

In using cotton to cleanse and flush the eyes, extreme care must be used that in so doing the cornea is not abraded. Under such conditions of inflammation, an abrasion of the cornea is an open invitation to corneal ulceration. Too much emphasis cannot be laid upon the necessity of keeping the eye clean and free from discharge. Handkerchiefs must not be used for such purposes and then used to wipe the other eye and then returned to the pocket, for it is just by such habits or measures of carelessness that the other eye becomes involved or the disease spread to other members of the family. Care of the bed linen, pillow cases, etc., is one of the requisites of good hygiene and when we are all impressed with the benefits to be derived from ordinary care and intelligence in handling these cases, fewer epidemics of such conditions will occur.

THERAPEUTIC POINTERS.—“Given a pain in the region of the kidneys, and I always think of *Agrimonia* as the remedy. In my practice I have seen wonderful results from it, in case of months’ and years’ duration, and when everything had failed. I have found other uses for it, but this has been so prominent that I always associate the medicine and the position of the pain.”—*Scudder*. The *Agrimonia* here referred to is *Agrimonia eupatoria*. Used in small material doses. Among the old-timers it had great repute as remedy for kidney and bladder diseases. There is no proving but it has been used by some Homœopaths after the methods of Burnett.

Dr. Ashley B. Palmer, Seattle, Wash. (*Pacific Coast J. of H.*), reports a case of anterior poliomyelitis in a baby aged under two years. *Gelsemium* in this case had a quick and favorable action, though he gave other remedies, *Aethusa*, *kali phos*, and *hellebore* for certain symptoms, “but, in the main, I am staying by *gelsemium*, for I see a constant improvement.”

For sudden, sharp pains in any part just recall *kali carb*.—*June North American*.

THORIUM PASTE IN SKIN CONDITIONS.

BY

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Dermatologist to the Flower, Metropolitan, Women's, Laura Franklin, St. Gregory's, St. Mary's, Jamaica and Hahnemann Hospitals.

(Read before the New Jersey Homœopathic Medical Society, May 25, 1911.)

To the man engaged in the art of healing the sick, which some of us still believe to be the true field of the physician as contrasted with the natural sphere of the scientist, it will not appear surprising that this paper deals with the clinical application of a compound of thorium oxide (thoria) rather than its interesting history as a so-called element, or more properly speaking, a complex body. But some historical facts may not be amiss.

Thorium is not new. Berzelius in 1817, while studying gadolinite, thought he had discovered a new oxide and called it "thorine," after the Scandinavian god of thunder Thor. It turned out to be a phosphate of the yttrium earths. However, persistence had its reward and thorium as a new element was placed by the same master among its peers in 1828. Many chemists, since this date, have verified these findings, while not a few, especially in recent years, have raised the question of its elementary nature until at the present time, it can safely be said on the authority of Branner, Crookes, Rutherford, Baskerville and others that thorium is complex and not a chemical element in the common acceptance of the term, and from the investigations of the last ten years, it appears certain that thorium can be separated into at least three simpler substances. Charles Baskerville, now Professor of Chemistry in the College of the City of New York, and our chief American authority in this and allied studies, after five years' research, announced in 1901 the separation of the element Carolinium, so-called because the monazete sands from which the original material was obtained are extensively found in North Carolina; in 1904 he separated Berzelium, hence we now have the original thorium minus these two new substances and Carolinium and Berzelium, as the minimum numbers of substances composing the former element thorium.

Since the discovery in 1896 by H. Becquerel of certain radi-

ations from uranium and its salts, much attention has been given to the study of radio-active substances and their degrees of radio activity. In 1898, Schmidt and Mme. Curie, independently of each other, discovered similar rays in thorium. Then followed in rapid succession the discovery of radium and polonium by the Curies in 1900; actinium in 1900 by Debierne, and radio thorium in 1904 by Ramsey and Hahn, and the demonstration of their radio activities.

While on the subject of radio-activity, it will be interesting to note that thorium is not considered a primary radio-active body, but owes its activity to thorium X, a highly radio active substance. Rutherford and Soddy, in 1902, published the results of their investigations concerning the thorium emanations, and Baskerville and others have since demonstrated that metallic thorium is not radio-active, but the oxide and its compounds are. All studies, heretofore, have been on the oxide (thoria) and its compounds, not on the metal itself. In the same way only, has it been possible to study radium, namely from its salts, because only limited quantities of these substances in metallic form are at the world's disposal, and the difficulty of isolating them has prevented the attempt.

It is not my purpose to suggest thorium salts as a therapeutic substitute for either radium or the X-ray, but merely to show that at least one form which we now have at hand will accomplish results. Its application in this particular combination is not new, for it has been successfully used for a number of years in the Hospital St. Louis, Paris, especially in de Beurmann's clinic; in Professor Schwatze's clinic, Vienna; and in the Middlesex Hospital, London. A number of cases cured by thorium paste were shown at the Medical Congress held in Leburg, in July, 1907, and many of these had received various caustic X-ray, radium and Finsen light treatments without permanent results. For the past seven years Dr. C. B. Semerak has supervised its use in hospital and private practice in Paris—and in September, 1910, he brought his thorium paste to the attention of Dr. L. D. Bulkley, at the New York Skin and Cancer Hospital, where it has been given a thorough and largely successful trial. Through Dr. Semerak's courtesy Dr. Wittington and myself obtained a supply of the paste for use in my clinics at the Flower and Metropolitan Hospitals and for private work, and the table appended to this paper gives the summaries of forty-seven cases treated

or under treatment. I am able to show you some excellent photographs, demonstrating by the "before and after taking" system, the results accomplished. These are furnished through the kindness of Dr. Semerak, because it is impossible for me to show photographic results of private cases and many of my hospital subjects are still under treatment.

The three hospitals mentioned are the only ones in America in which this preparation has been used as yet, and very few physicians have been able to procure the paste because its production calls for personal supervision and special facilities. Hence the limited supply brought from Paris must suffice until the coming October, when a well-known chemical house expects to place the paste before the medical profession under the name of "Thoridin." A word as to its composition: Like all thorium studies, we start with thorium oxide known as thoria, and by precipitation and other chemical manipulation thorium X, a highly radio-active substance, is supposedly produced. The protoxide and sulphate of lead, sulphuric acid and a small amount of hydrochloric acid are used to complete the preparation. This semi-liquid paste is creamy in consistency, and greyish-white in color; separates when standing into a lower layer of the metallic elements and an upper layer of liquid, acid in reaction, caustic in action and translucent.

Ordinarily it should be thoroughly mixed and applied with a camel's hair brush, orange stick or narrow wooden spatula. Cotton on a probe may be used, or the end of a wooden tooth pick, if only a small quantity is desired. Experience alone will show whether the full strength is best for any particular case. If not, wash off the liquid to any extent needed and the destructive effect will be lessened in proportion as it is diluted. I have found it wise to apply full strength to those lesions that present unbroken surfaces, such as discoid and nodular epitheliomata, nævæ, verrucæ, and lupus erythematosus. The same rule holds good where counter irritation and stimulation are desired. When ulcers and raw surfaces are to be treated, the surfaces should be dried as thoroughly as possible, usually by pressure and a degree of dilution used, consistent with the depth, extent, duration and location of the lesion. Pain at the seat of application may be experienced, lasting not longer than four hours in the more exposed lesions. Usually burning, aching and smarting are experienced in varying degrees. For extensive use, that is, in its application, to large areas of dis-

eased skin, a one to five per cent. strength in water should be used and as the surface becomes more healthy, the strength may be increased or you may use various strengths simultaneously on different sections of the same growth. For the treatment of indolent scaly eczema and old persistent psoriasis, thorium is best applied in lanolin, using ten to twenty-five per cent. of the paste. It might be well to add that thorium paste which dries as a thin white layer should be allowed to remain as long as possible, and it is often well to paint a fresh coating over the old one unless serous discharges have loosened the former application. In cases that are very sensitive to pain, I have applied the paste to the healthy scab, hence securing a good foothold and not subjecting the patient to unnecessary suffering. These applications of thorium may remain, if undisturbed, from five days to three weeks, and may be protected by bandages, vaccination shields and other means, after becoming thoroughly dry.

This preparation is radio-active, as can easily be proven; it has antiparasitic, antiseptic, antipruritic, escharotic and stimulatory effects. Thorium salts, no doubt, possess some special properties of their own, for it is believed that all radio-active substances have certain chemical and physical peculiarities, and many possess material advantages over radium, so it is probable that as they are better understood, their usefulness may greatly exceed that of radium, which is the only radio-active substance now largely in use. From the standpoint of radio-activity, the chief objection to salts other than those of radium, is their lack of certain rays, and their comparative radio-active weakness, but this objection may be removed if it can be determined just how strong, relatively speaking, the thorium X examinations are in this formula under consideration, and to just what extent their strength may be sufficiently constant; in other words, how long will this paste retain enough radio-active power, to be useful therapeutically.

Thorium paste has been used almost wholly here and abroad in dermatological practice, and especially on those diseases known as new growths with the addition of some vegetable parasitic diseases, and even these latter are pathologically speaking, new growths. My own application to such diseases as eczema and psoriasis is purely experimental. The most successful work at the New York Skin and Cancer Hospital has been upon cases of epithelioma, lupus vulgaris, lupus erythe-

matusus, nævus and verruca. On the continent it has also been used successfully upon various types of ulcers, cysts, etc., and in Japan upon the dermal lesions of leprosy. My figures embrace forty-seven cases of which thirteen are still under treatment, or have not improved as yet. Of the nineteen epitheliomas treated, and they were of all types—nodular, discoid and rodent ulcer varieties—six have been cured and ten are much relieved; of the six cases of verruca, three have disappeared and another nearly so; of the ten nævæ of different varieties, all congenital, five are cured, three much improved, and the remaining two are still under treatment; both of the cases of lupus vulgaris are nearly cured and one of the two cases of lupus erythematosus is much improved. A case of eczema intertrigo of one year's duration was greatly benefited by one application.

This paper is the first ever presented to a homœopathic gathering on this subject, although I had intended to present a preliminary report at the February meeting of the New York State Society at Albany, in February, 1911, but was prevented from so doing at the last moment. I hope to present a more complete report at the next American Institute meeting.

It would be premature to offer any theories as to the real or supposed forces at work in this compound, and it is also foolish to offer any theories as to cell changes or other histological and pathological occurrences at this time. These topics, as well as the comparative worth of this paste must wait our future testing. Suffice it to say, that this preparation so new in American therapeutics, gives promise of a useful future.

SHOULD ECLAMPTIC MOTHERS NURSE THEIR NEW-BORN?—Godall's (Montreal) consideration leads him to conclude that in a mother profoundly toxæmic and jaundiced, it will be well to feed artificially for quite a few days, and have the breasts pumped dry once or twice after the maternal toxæmia has improved and before the child is allowed to nurse. If the maternal convulsions came on postpartem (these are the most dangerous cases for the nursing infant) then allow the maternal elimination to go on until she is free from the greater part of her toxæmia and then empty the breasts before allowing the child to nurse. If the albuminuria persists after gestation, it will be well to feed artificially throughout.—*Amer. Jr. Obs.*, Vol. 63, 11.

PRE- AND POST-OPERATIVE TREATMENT.

BY

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(Read before the New York State Homœopathic Society, at Albany, N. Y.)

OF late much has been said and written on the subject of post-operative treatment, and justly so, for in our opinion this is a subject of particular interest to the majority of us. Some have even gone so far as to say that many cases have been lost by the failure to apply the proper after treatment. That this statement is based upon some truth should be looked upon as a deplorable fact. As much has not been said about the treatment prior to operation, but the thought arises in our minds, is not the pre-operative treatment likewise of great importance? We should think that the answer would be loudly affirmative. Haubold, in his recent work, makes the statement that he asked a number of his surgical friends, "What are your feelings when a practitioner calls for you to come and at once do a celiotomy? Do you feel that you can expect everything will be ready for you and the preparations complete?" The answer to the question was qualifiedly in the negative. The qualification was as to whether or not the doctor had recently had a surgical experience as a hospital interne. After being out for a certain length of time, say ten years, they felt it would be necessary to do a great deal before operating, or else run a great risk. This, I feel, may be true of those whose college training ended some years ago, but the men who have graduated recently should be better able to make the necessary operative preparations. This, I think, is due to the system of bedside and clinical instruction which exists in all the reputable medical colleges in this country, but even at this, there is much to be desired in this respect. The student is taught how to arrive at diagnostic conclusions; how to operate, but in many instances the pre and post-operative treatment is left entirely to his imagination. If the termination of the case is successful, he may see it again, but the means used to arrive at this successful conclusion are not placed in evidence, with the exception of the skill demonstrated at the time of operation. If any pre-operative measures are used,

many times he is not aware of it. If this is true of the young man, how much more is it true of those of us who graduated ten or more years ago—left the centers of medical learning for the smaller cities and towns to take up our life work, and see an operation occasionally. Some of us may have taken up the specialty of surgery in some of its branches, it is true, and have learned from bitter experience that after an operation is performed there is much to be done before our patient resumes the normal in life.

To those who are in the general practice of medicine, and employ the specialist from a distant city, see the skill and ability manifested, followed by the departure of the surgeon, what are your feelings when things go wrong and the burden rests upon you? If these statements are true, then we may beg your indulgence while we present to you a resumé of the generally accepted measures in pre- and post-operative treatment. Suppose we begin with the usual clean case which demands a combined vaginal operation with a laparotomy. Such a case generally presents itself to you, after suffering for a certain length of time, for treatment and such is begun in your office. Here it is that pre-operative treatment is first instituted. One may find an eroded cervix, tremendously congested and increased in size, with a displaced uterus, a mass to one or both sides, bowels sluggish, patient anæmic, nervous and debilitated. Local treatment combined with general measures directed toward building up the general health are certainly indicated. A complete examination of the blood and urine, with a record of same, will be greatly appreciated by the operator; efforts toward establishing a proper bowel elimination may tend to make convalescence quick and sure. (By local treatment we wish to infer that which tends to relieve the erosion and congestion, and with which you are all familiar.) Having decided upon operation, the next step is preparing her for the same. First, the bowels. The rectum and lower bowel to be emptied as thoroughly as possible by the use of purges, such as castor oil 2 oz., licorice powder 1-2 oz., sulphate of magnesia 1-2 oz. to 1 oz., with an enema the morning of operation. When no perineal work is to be done, we do not feel that such brisk catharsis is necessary, and often confine ourselves to the use of one or more compound enemata to be given high. The diet is to be reduced, and a very light supper of toast and tea the night before, and water in small quantities during the night

and early morning. Some patients, in fact the great majority, are apprehensive and nervous, and the night before an operation is a thing of terror. In such cases we have never hesitated, and in fact it is a routine measure to use morphia in 1-4 grain doses. The preparation of the site of operation is a great question and is attained in a multitude of methods. We believe that the simpler the method, combined of course with safety, is the one which appeals to the majority of us, and we have found that scrubbing, shaving, washing with green soap and water, applying alcohol and then either Harrington's sol. No. 9, or the ordinary bi-chloride sol., one to 2 or 3 thousandth, and a bi-chloride towel covered with a protective binder, answers our purposes. This with no washing of patients on the table, but simply applying tinctures of iodine, has reduced the number of infections in wounds to practically none. Now while this may suffice in the usual case, we must recognize the fact that often we are called upon in our work to treat the unusual case, namely, the acute infections. The extra uterine pregnancies, fortunately now recognized before collapsic symptoms, are manifest, although even this is not always true. These cases demand special pre-operative treatment as well as very careful after-treatment. In the acute infections, the pre-operative efforts should be directed toward diluting the toxemia already manifesting itself as a systemic condition and overcoming the shock which may be present. This can be best accomplished by saline solution introduced by hypodermoclysis, or by Murphy's method, a free purgation, and the use of vaccines, either auto or homogenous. As to the shock: The use of morphine and adrenalin chloride in doses of 1-4 grain and 10 to 30 drops of 1-1000 solution. When the extra uterine collapses occur, as well as the symptoms of exsanguination resulting from the excessive hemorrhages due to a fibroid condition or malignant growths, operative risks may be avoided and the patient much benefited by the direct transfusion of blood. This subject will be further considered under the treatment of shock. The pre-operative consideration of such subjects as lesions of the heart, kidneys and lungs, as well as diabetes, are all subjects which you as general practitioners are familiar with and fall to your good offices for treatment.

The application of dressings to a wound immediately following its closure is a consideration generally of the operator,

but in the experience of many, the less frequently a wound is redressed, the less possibility of an infection. With this end in view, we believe that the method in use in several hospitals, and brought to our notice at the Mayo clinic, seems to answer the purpose nicely. After the sutures are tied, we paint the wound with the tinc. of iodine, allow it to dry and place a narrow strip of gauze lightly over the wound. A few pieces of folded gauze are laid over this, then a large laparotomy pad is placed over all. This is held in position by a few strips of adhesive, so placed as to seal the lower and upper edges. If there are no contra-indications, this dressing is left intact for from four to six days, and redressing is accomplished by loosening the lower strip of adhesive, and by means of sterile forceps the loose gauze is gently removed from the wound; and if on inspection the wound appears normal, the remaining dressings are allowed to fall in contact with the wound and a strip of adhesive again holds it in place. Eight to ten days after operation, the dressings are entirely removed, the wound bathed with any one of a number of antiseptic solutions, the stitches removed and a few pieces of dry sterile gauze applied. In our experience, covering a period of three years, this simple method has proven very valuable.

In the treatment of operative wounds, we would like to call to your attention the fact that when catgut is used, oftentimes there is an accumulation of serum by means of which nature is attempting to absorb this material. This serum is fine incubative media, and if allowed to remain in any quantity results in pus. It is recognized by a boggiessness of tissue; slight persistent rise in temp., and continued pain in the wound. A sterile toothpick, or a grooved director inserted gently between the edges of the wound will relieve this and may prevent an infection. When stitch abscess occurs, the removal of one or two sutures with a local application of carbolic acid and alcohol, often arrests the trouble. The immediate care of the patient directly following operation means promote quiet and rest. If vomiting persists, gastric lavage should be instituted. For the pain we always employ morphine and atropine grs. 1-4 and 1-150, by hypo. When nausea ceases, water ad lib., and followed by liquid diet for two days. Then a soft diet is substituted and the patient placed on medium diet as soon as possible. As to when to use the various measures to promote bowel activity: This is a mooted question, and to

our minds each patient is a law unto herself. Some patients must have a comp. enema in twelve hours, others go for forty-eight hours without any discomfort, when castor oil in 2 oz. doses is administered generally in the froth of beer, which disguises the taste, and the bowel function is properly restored. Occasionally when the abdomen has been opened for some condition, and the operation has been completed in a short time and the outlook is rosy, something goes wrong. I can perhaps express myself best by citing a personal experience:

Mary McD., age 38, was admitted to my service in November, 1908. Operated for ovarian cyst which was freely movable. Right rectus incision, cyst removed, abdomen closed. Time of operation 22 minutes. Immediate post-operative condition good. Saw her following day, found her highly nervous and apprehensive. Temp. 98.8, pulse 88, abdomen not distended and no vomiting. Pain not present. The next day condition about the same except that the abdomen was distended. Every effort was made to establish peristalsis, enemas were given, gastric lavage instituted, calomel, croton oil and mag. sulph. by mouth; Eserine sulph. 1-50 gr. by hypo., with no result, and 84 hours after operation patient died. At no time was there a rise in temp. and no evidence of peritonitis. Autopsy revealed no cause for distension. These cases of intestinal paresis, or pseudo ileus, are not, in the opinion of Morse due to prolonged exposure of the intestines following a serious operation, but are due to the neurotic element in the patient, and lack of a proper amount of nerve force. One of the frequent symptoms is persistent lumbar and occipital pain. If the condition is given the proper consideration and prompt treatment is instituted, the majority of cases can be saved. The treatment is essentially that which is stated above.

The condition of post-operative shock must be taken up briefly. The use of stimulants is certainly indicated and the most valuable one seems to be adrenalin chloride 1-1000 sol. in doses of 10 to 30 drops by hypo, or directly in the blood stream by means of intravenous saline infusion. Posture by elevating the foot of the bed, the bandaging of the extremities, or the use of a Crile's pneumatic unit, which can only be available in institutions. Whether intra-venous saline infusion is of use is questionable, but should always be tried, and in our hands has been of some value. Direct transfusion of blood should be attempted in serious cases when possible. The methods most

often used are either direct suture of the donor's radial artery to the recipient's median basilic vein, or the use of the magnesia tube. According to the technique advised by Quierolo and supplemented by Crile: Crile says that the treatment of shock by transfusion is entirely of mechanical nature, but the majority of observers are satisfied that lives have been saved by this seemingly radical measure.

The complication of acute dilatation of the stomach happens frequently enough to be mentioned, and when present is often alarming. The treatment is gastric lavage repeated sufficiently often to relieve the symptoms. The use of eserine and strychnine by hypo., and the use of enemas to promote bowel function.

The kidney and lung complications, following operation seems to us to be in the realm of medical art per se, and as such belong to the internist and general practitioner.

When mentioning the pre-operative treatment for the acute infections, we desire to infer a peritoneal complication, and mentioned the fact that the treatment should be directed toward the dilution of the toxemia. This statement holds true in the after-treatment. While drainage is more particularly in the realm of active surgery, we desire to mention the method used in many institutions, namely, that of draining through a separate wound, stab-wound drainage. These drains may be glass or rubber tubes, or a cigarette drain made of ordinary sterile gauze wrapped with gutta percha tissue. In these cases the placing of the patient in the Fowler, or semi-upright position, which, as you all may know, recognizes the fact that the pelvis has relatively few lymphatics, and as the septic material is forced to drain to the pelvis, makes the absorption a slow process. This with the use of a normal saline solution introduced into the rectum following the Murphy method, along with gastric lavage, the use of stimulants as well as the remedies which may be indicated, and the modern vaccine therapy, seem to be the methods most in vogue at the present time.

May I cite two cases: Mrs. B., age 19, general peritonitis, temp. 104.4, pulse 148. Operation revealed free pus in the abdominal cavity in large quantities, intestines adherent and generally discolored, abdomen thoroughly flushed with saline solution containing adreanaline solution, stab wound drainage established in four sites, wound closed. Immediate post-operative condition very poor, patient collapsic, pulse almost

imperceptible, adrenalin used by hypo., Fowler position, Murphy entero-clysis, hour on and off, end result recovery.

Mrs. S., age 40, general peritonitis, temp. 105, pulse 160. Operation revealed a large amount of foul smelling pus, which flowed from her abdominal cavity on incising the peritoneum, adhesions everywhere; removed tubes, ovaries and appendix, established stab wound drainage freely, wound closed. Immediate post-operative condition alarming. After treatment, stimulation, Fowler position, Murphy entero-clysis, followed by recovery. In neither of these cases was there any infection of the operative wound.

In the treatment of the infected wounds, the redressing as frequently as necessary, using the usual antiseptic solution and enzymol 1 to 3 or 4 with Laboraques solution, when a fecal fistula is present will generally prove to be satisfactory.

IRITIS.

BY

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In Dr. Herbert Harlan's eye clinic recently, I saw a lady who had been treated by a physician for the previous three months for pain or neuralgia in the eye, and at this time it was beyond aid, and possessed a vast potentiality of trouble for the future. The endeavor of this paper is to try to give sufficient general principles that such an error shall be most rare. This was a case of simple Iritis that was not recognized, and treated without proper diagnosis. The whole pupil was obliterated so far as sight was concerned, the exudation having excluded entrance of rays into the eye, and the whole pupil being bound down irrevocably.

A pain in the eye is, of course, symptomatic of many things. While for pain in the eye in a case of Iritis, atropin would be indicated, it would be contra-indicated for a case of glaucoma. Hence, imperialism could not hold sway, but true reason should be behind each procedure. Conjunctivitis may closely resemble iritis, and I have seen episcleritis to be, also, iritis, at the next visit, and other conditions arising may seem quite an

entity of themselves, as for instance, an ulcer of the cornea, or an abrasion of the cornea from traumatism, or as sometimes even in interstitial keratitis, an iritis may be present with any of these troubles that is of greater import to the individual than the diseases that first demanded or caught your attention. It behooves us, then, to state a few points in connection with the eye already well known.

The iris is the front part of the second tunic of the eye and is so named from the word rainbow, referring to its various colors. It is the contractile curtain which surrounds the pupil, making this large or small in its involuntary contractions. The edges about the pupil lie against the lens. At the circumference of the iris there is a reticular structure connecting with the cornea, called a ligament. It is derived from the inner layer of the cornea, or Descemet's membrane, which at the margin of the cornea breaks up into fibres. Between these fibres there are what is known as spaces of fontana, communicating with a larger space in the sclerotic called the canal of Schlemm. This may be a venous, but more likely is a lymph channel; at least, it is circulatory.

In structure, the iris is a delicate hyalin basement membrane in front, covered with polyhedral cells. This layer is continuous with the endothelial layer of Descemet's membrane. The stroma consists of fibres and cells, forming a delicate mesh in which vessels and nerves are contained. The cells have many branches and fine processes and may contain pigment. Next, there is found a muscular layer of involuntary fibres, circular about the pupil, 1-13th of an inch wide; and the rest are radiating fibres, these blending with the sphincter fibres. The pigment site differs. The posterior layer is always dark purple, except in albinos, hence the name "uvea," grape; in the darker eye, pigment is found anteriorly and posteriorly, and in the lighter eye, blue, etc., the coloring matter is in the deeper parts only. The blood supply is abounding and comes from the ciliary arteries. The nerve fibres in the iris are non-medulated, coming from a plexus at margin of pupil, being derived from the ophthalmic branch of the fifth nerve, and from the motor root of the third nerve, the latter supplying the circular fibres; the radiating fibres being connected with the sympathetic.

Back of the iris is the ciliary muscle, 1-8th inch broad, on outer surface of forepart of the choroid. In this there are two

kinds of fibres also, as before, the radiating ones being more numerous, and external to the circular. The two are more or less disconnected. This muscle is the accommodating or adjusting part of the eye for near and far vision, its effect being that, by contracting and drawing on the ciliary processes, a series of sixty or more pigmented vascular processes arranged circularly around the lens behind the iris, relaxes the suspensory ligament of the adjacent lens and allows the lens to become more convex, which it does for near vision.

All this territory is bathed in a fluid, which, because of the presence of leucocytes, is thought to be lymph. Back of the lens is the jelly-like vitreous. In front of the lens in its capsule, and ligament, is the fluid aqueous humor, 98.6 per cent. water, with sodium chloride and proteids. This fills the space between the inner surface of the cornea and the lens capsule surface, and this space is divided by the iris into the anterior and posterior chamber. The iris floats freely, the circulation is unimpeded and natural processes proceed under this condition in the normal adult.

Inflammation of the iris—iritis—may occur as a primary affection, or be a secondary disease of great importance to sight. The chief causes are constitutional, as syphilis, diabetes, gout and rheumatism; and, also, it may occur from gonorrhœa and other acute infectious diseases. Divisions are made of iritis into plastic or simple, and parenchymatous or suppurative. It is also acute, subacute and chronic.

But what I want is not so much to make a learned dissertation on iritis, as to call your attention to certain points that may determine you to give attention to this disease, know when you might have it as a complication, and recognize it and not neglect it. Cases come along that do not complain of pain, even—one last month in particular spoke only of a mist before his eyes. It is not safe to depend upon atropine for a diagnosis, because, as stated, one might put it into a glaucomatous eye. A recent book upon the eye says: "Owing to the difficulty in distinguishing the various forms of iritis and the danger of delay in waiting for the characteristic symptoms to develop, it is necessary to employ a mode of treatment applicable to all." Thus it may be seen that the most important point from this author's view, and he is a specialist, is the fact of ascertaining the case to be one of iritis. In presenting to you, much to your probable discomfort, the ana-

tomy of the eye in this region, it is my intention to draw your attention to the proximity of the structures and the danger of extension of inflammation by contiguity and continuity. The inner coat of the cornea or Descemet's membrane, is but a continuance of the same structure that mostly forms the anterior part of the iris, and for this reason we would expect troubles of a serious import to the cornea itself to be likely to increase the blood supply in such a vascular structure as we see the iris to be in our anatomy study. Here we would all put drops of an atropine solution, one, two or four grains to the ounce, into the eye, as a matter of precaution. Of course, corneal conditions might become very serious, so that the general practitioner would rid himself of responsibility by sending to an eye specialist such a case. The treatment would then be atropine, with whatever else might be called for, but always the atropine.

In sympathetic ophthalmic irritation, where the sight of the good eye is threatened by some condition about the other, it is in the iris and its roots, as it were, that manifestations begin, and it is well for the general practitioner to remember this in the cases where there has been an injury in the past to an eye, especially of a perforative nature. This disease comes in the process of operative treatment and is watched for. It also comes as a thief in the night. Among some of the causes may be mentioned old foreign bodies in an eye, displacement or calcification of the lens, calcification of the choroid and ciliary body, pressure of an artificial eye, or even incarceration of the stump of the optic nerve after an enucleation.

In all operative conditions of the eye from the simplest to the greatest, the surgeon is always watchful of an iritis and prepares to meet it. In these cases of iritis, the eye shows deep injection, is painful and probably shows pus in the anterior chamber. It is not these well-marked cases that one need fear a misjudgment of a serious disease, but it is the casual patient with a photophobia, little pain and redness, and where one may only suspect the presence of a catarrhal conjunctivitis, that it should be made clear that an iritis is not present. In a large clinic where the poorer classes are found, frequently such a case is seen and though appearances did not indicate iritis, it is often found on thorough examination. Where one suspects iritis, the patient young, and though everything points to a conjunctivitis only, it might be wise to inject atro-

pine. With many this is routine procedure. If not iritis, the rest given the eye by reason of the dilatation of the pupil will prove beneficial, besides at once deciding most always whether it is iritis or not. As you watch the dilatation, if iritis is present, you usually see an oblong pupil, or other than a round one, the attaching points of the iris holding it bound down at places. If there is no dilatation, which is the case if any time has elapsed since the incipency of the trouble, there exists a complete attachment or synæchia, probably posterior, of the pupil, and, if permanent, may be the source of much discomfort.

If one will examine the pupil by the oblique method, the depth to the pupil may be seen to be greater than normal. The iris itself will appear swollen, irregular, and dots may be seen through the cornea, especially if syphilitic. Also, by the indirect ophthalmic method one may see in the pupil about the edges of the iris, the dark, loosely-lying particles, especially showing in old cases, which are remnants of the exudate.

Probably the most ambitious point aimed to be covered in this paper is the picturing of the glaucoma case as distinct from the case of iritis. Iritis may complicate glaucoma, and then operation is demanded. I know of a case of iritis that was treated for glaucoma, too. Still, we must realize these are rare events. You must not inject atropine into a glaucoma eye; if, possibly, you do, follow with eserine. Glaucoma means, at least, an eye too full for itself, and the contents in trying to get out, push out at the weakest point—the nerve entrance—and we lose sight over night, maybe. Atropine makes things worse, it is theorized, by pushing the iris back upon the canals for drainage we have spoken of above. I suppose more eyes come for treatment too late suffering from glaucoma than any other disease.

Both these troubles have early dim vision, pain, more or less; injection, hazy cornea, probably; discolored iris, apparently; and the age of the patient may the more mix you, because you expect iritis in young and glaucoma in the older, and the case before you may be neither one or the other. For the difference, an ophthalmoscopic direct examination will show a grayish disc in glaucoma, which it needs that you bring before your eye in your instrument a minus six sphere to examine better, if you can get a view at all. In iritis you may be unable to see within because of the occlusion of the pupil by the exu-

date and its being contracted and not reacting to light, and is painful to examine. The pupil is dilated in glaucoma, and you have a hard tense ball; in iritis, the eyeball is tender, sensitive; in glaucoma, not sensitive so much; may be anæsthetic; there is also a greenish reflex to the pupil. The glaucoma eye is generally hyperopic, while the iritis eye is more likely to have been myopic. Heredity may figure more in glaucoma than in iritis.

The positive signs of iritis might, then, be set down as pain, worse at night, adhesions of the iris; hypopion; or pus in the anterior chamber; deep, pericorneal injection; a tender eye; a contracted pupil, on close inspection with magnifying lens, engorged blood vessels may be seen throughout the iris; steamy or dusky cornea; points on posterior part of cornea, whitish on oblique illumination; most likely present and syphilitic in children's eyes with photophobia and pericorneal injection and no ulcers or phlyctens to be seen; on dilatation with atropine, irregular pupil.

My friend, Dr. G. J. Palen, of Philadelphia, writes: "You have chosen a most interesting and at the same time, an exceedingly important subject for your paper. I have seen a number of very sad cases resulting from the use of atropine in supposed cases of iritis, where the condition was, as you have stated in your paper, glaucoma. It is exceedingly difficult to overcome the effect of atropine with eserine in such cases. When properly treated, cases of iritis respond very well, even very marked cases where the pupillary area is filled in with plastic exudate, return eventually to a normal condition; the exudate becoming absorbed and vision returning in every way to normal. In a certain class of cases, especially those due to syphilis, we are apt to have a cyclitis occurring, and in such cases, it is exceedingly important during the course of the case to watch the tension carefully, and should the tension become raised, as frequently occurs in cases of cyclitis, it may become necessary to stop the atropine.

"The treatment of a case of iritis presupposes a thorough knowledge of the eye and considerable skill in examination, for the ophthalmoscope becomes a very important factor in watching the progress of the case and recognizing beginning complications such as deposits on Descemet's membrane due to cyclitis.

"Internally the medication will vary according to the case.

The majority of these cases are due to syphilis or rheumatism and medication of the basic condition becomes therefore necessary. It is wonderful how quickly many of the specific cases respond as soon as mercury is given. *Rhus tox* and *bryonia* are the indicated remedies in rheumatic cases. Cases due to diabetes are as a rule exceedingly severe and medication much less effective.

"Stress must be laid in speaking of typical iritis upon pericorneal injection, discoloration and swelling of the iris, contracted pupil, pain, both in the eyeball and referred back to the temporal region, hazy vision due to plastic exudate, the "cloverleaf" pupil under atropine, and also in the treatment, the tension from the use of atropine, as noted, must be watched carefully. The vitreous must also be watched, its clouding denoting a cyclitis."

The important sequella from iritis, when not promptly treated, are a bound down iris and occlusion of the pupil by the exudate; from these conditions arising interference also with the circulation, even to the production of glaucoma and a possible enucleation. Iritis also is very apt to recur.

To summarise, in the event of a patient appearing with an eye in any ways resembling these conditions, keep in mind:

1. In an eye coming to your notice, always remember the possibility of the presence of one of two diseases that may be vastly influenced by your treatment upon first seeing—iritis and glaucoma. Anyone of the other diseases of the eye will bear waiting for a second visit; not so these.

2. If the patient is a child, make sure it is not syphilitic iritis if at all resembling it; if there is a whitish, opal-looking cornea, it may be interstitial keratitis, another syphilitic disease accepting about the same treatment.

3. If your patient is old and no history of iritis, make sure it is not acute glaucoma.

4. Insert a drop of atropine sulphate solution, 4 grains to the ounce, if the case is doubtful of being iritis or conjunctivitis, and the patient not over forty, thus bringing out the synæchiæ, if iritis, which will most always be overcome by continued atropine treatment.

5. If over forty, the atropine may be used, if we are sure the patient has not glaucoma.

6. Eserine will make the iritis eye worse, and atropine will make the glaucoma eye worse.

PROCEEDINGS OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA.

SPECIAL ADDRESS.

BY

DR. H. R. ARNDT, OF SAN FRANCISCO, FIELD SECRETARY OF THE
AMERICAN INSTITUTE OF HOMŒOPATHY.

MR. PRESIDENT AND FRIENDS: I experience, naturally, some hesitancy in following with a rough and extemporaneous talk, so well-matured and suggestive paper as we have just heard; the more so, since the doctor has said, much better than I probably could say, some things to which I desire to call your attention. But I have, a part of my life, been placed where I had to issue orders; and as a result of that, in my demanding obedience from those to whom I had a right to issue orders, I have, on the other hand, learned to promptly obey orders; and since it is the will of your distinguished president that I speak to you now, I simply ask your forbearance, for as short a talk as I possibly can get along with, and will do the best I can with the subjects that are uppermost in my mind, and which I think I should present to you in some form.

Before approaching the topic, however, I desire to discuss, I want to express to you the real, genuine gladness which I have in finding myself in Pennsylvania. Many, many years ago when I was a medical student (and it is more than forty years ago) I had learned to look upon Philadelphia as the Mecca of homœopathy, and I had learned to revere the entire State of Pennsylvania simply because it was fortunate enough to harbor Philadelphia. I was so thoroughly imbued with the homœopathic spirit that every thing concerning its history was very precious to me, that I actually thought at the time that the men and the women who could be in Philadelphia and Allentown, were to be envied indeed.

I have heard it said (and, in fact, only yesterday), that there is a great big fight on between the old school and the homœopaths. I took occasion to correct the gentleman who made the statement (he was not a physician), and told him that gentlemen did not fight, they did not quarrel, but that the facts of the case are, there are some points in which we are at variance

with our colleagues, and which I thought might eventually be settled, after an occasional stormy session. Those points which are at variance with our friends of the dominant school, of course exist; and while I have not time, without tiring you almost to death—which I do not mean to do, for I have a really kindly feeling toward every one of you here—I want to simply have you focus your attention for a minute upon this fact: that the starting point of this controversy lies in the desire of the dominant school, dating away back to the ages, probably before Adam and Eve were in the garden, to have just one united medical profession and they, of course, wanted to be it.

Now, the desire to have the medical profession united is not in itself an undesirable thing; and there are those of us who wish that it might be so. The only difference between ourselves and the dominant school being that to us it seems just as plain as the mole at the end of my nose that the only way to have that unification of the schools is to have them become homœopaths. And all this difference that has arisen since then, comes simply from looking at the same desirable thing from different standpoints.

To save time, let me call your attention simply to a very few facts; and they are all familiar to you: I am not going to tell you any thing new, because I don't know enough to do that; but I want to have you group together some of those facts, and then see if you can draw certain deductions from them. One of the means which our friends have lately employed to draw to themselves as many of our people as they possibly can, thereby changing the entire method of procedure which they had been following from the beginning of creation. The result has been that a great many of our men, especially in isolated districts, who had been obliged to get along without professional associations, feeling perhaps also a yearning for medical unity, joined the A. M. A. and the various old school societies; and I don't belong to those who think that every man that did that must necessarily be reproached with lack of faith and lack of loyalty to ourselves; because if you have not, I have, seen conditions under which if I had lived (as some of my colleagues, for instance, of that far western land), I don't know whether I would have had ugliness enough in my nature to resist, or whether I would have yielded as they did. That was the first and most successful move our friends of the dominant school made; and from all I can see, its effects have been seen in your

own State just exactly as much as in California and in the other Pacific Coast States.

The second consideration to which I invite your attention is this (and it is a very important feature), that after experimenting in every possible way with medication and blundering along, utterly refusing to be advised, determined not to accept our light, no matter what the results might be, the old school, under the leadership of such men as Osler and others, have become avowed therapeutic nihilists; and while, in country practice especially, you may find that the old school practitioner still carries his jalap and more modern preparations and deals them out generally, the highly trained and intelligent medical men in the city utterly refuse to be thought guilty of the prescribing of drugs; would consider it almost an insult if he was suspected of giving drugs except in cases where he wanted by suggestion to aid the patient in getting well. Now, that is a very important point; and I will recur to it again.

From that arises the peculiar attitude of some of the boards of medical examiners. Now, your experience in Pennsylvania has not been quite as we have suffered in some of the other States. You have fought against the mixed board, and I trust you will continue to fight against the mixed board; and I hope and pray that you will never have a mixed board in this State. I am quite sure your fight would be to the bitter death if you had observed what, especially in some of the western States, these mixed boards have done. Take, for instance, the State of California, in which we are represented by two members of the board. There is absolutely not a single question asked of any applicant for a license about *materia medica*, or therapeutics. Why? Because the board holds it does not make any difference whether a man knows anything about drugs and their uses or not; his value as a physician does not depend upon his knowledge of drugs. Not only that; to clinch the question, they don't examine in medical practice—there is not a word said about it; and for some reason or other in California they even exclude the science and art of surgery.

Now, I beg of you to simply stop and consider that this board of eleven men, to determine whether you or I are qualified to practice medicine in California, or anywhere else, exclude from consideration those three great practical branches which in themselves hold almost every thing that the sick peo-

ple care for, exclude them entirely, and simply devote all their time to the so-called scientific branches.

Now, imitation is shown in most every direction. I am sorry that of late the State of Washington, within the last two or three years, followed that same method; so I know of at least two States where the mixed boards follow that course of determining the qualifications of a man for actual work in the sick room,

Now there is a peculiarity, a sort of fateful awkwardness, in which we are placed on these very mixed boards. We hold only a minority on a mixed board, have no power to control the action of that board, and we are officially held responsible for what the majority do. The members of these mixed boards practically say to the people, "Why, it is evident that no intelligent physician believes in the drug medication to-day. We have on our board these two gentlemen, well-known homœopaths, as you know, of San Francisco and Los Angeles; they endorse that action, and they speak for their school." In that part of the country this argument makes itself very positively felt; and the people are beginning to believe that we have been converted away from the teaching of Hahnemann and that we stand upon the same ground, so far as drug medication is concerned, which the old school has occupied so long.

Now, when you bear in mind that there is absolutely no excuse for the existence of homœopathy, save as it represents faith in the action of drugs, administered by and according to certain principles, then you can readily see that this position into which we are placed is almost fiendish in its ingenuity, and it is terrific, so far as its consequences upon ourselves are concerned.

Another feature which our friends on the other side have impressed strongly upon the public at large is the fact that medical colleges are not run for the sake of the public; that they are run, rather, for the sake of a few cliques of doctors; and that the medical profession, badly educated as it is, really does not deserve in any way, shape or manner, the confidence which it has hitherto enjoyed. The constantly repeated cry, "Fewer doctors, but better doctors," is rung, rung, rung in the medical and in the public press; and the people are beginning to believe that.

Now, as a matter of course, the college question presents a great many other interesting features, and we could well spend

a long time discussing it. I will return to it briefly, a little later on.

Now, what are the merits of these various pleas made? So far as the use of drugs is concerned, you and I know very well that the old school never can accomplish satisfactory results by the use of drugs, unless they employ them upon a basis far different from that upon which they have employed them, and so long as they are utterly unwilling to be advised, why, it is perfectly natural that they should say (if they want to be honest), "What is the use of prescribing drugs? They never accomplish anything good in our hands." But if they only would take advice, if they would only be counseled, I am quite sure that their position would very much change.

You know, there was a time about ten or fifteen years ago in the history of our school when a great many of our people thought it required but very little coaxing of the old school men to cause them to openly avow their faith in homœopathic therapeutics. They based that faith on the ever increasing readiness to use arsenicum; but that time must have passed away, for while they still do use Fowler's solution, and sometimes in very minute doses, in treatment of conditions to which *Arsenicum album* is strictly indicated, they are not clearsighted enough to see what they are doing. They are simply practicing a blind empiricism, which, as we all know, though it may be a useful side light, is never any particular value in developing a fixed law of cure.

So far as the college question presented by our friends of the old school is concerned, as a matter of course there is very much to be said in favor of elevating the standard of medical education, provided, always, that it is moving in practical lines. The college men know better than any one else what a botch in many directions has been made of this vaunted medical education. I appeal to you whether or not the man who knows absolutely nothing of the action of drugs, who is not as well grounded in practice as a graduate ought to be; the man whose entire life has been spent in the various laboratories and who can go into the sick-room and give to the patient, if necessary, a long and elaborate lecture about the nature of certain micro-organisms and can illustrate that lecture with all the resources of modern laboratory science, whether that sort of a man is of any more use to the one suffering from the effects of those

microbes than he who knows a little less about them but understands fuller what to do to get rid of the bug.

Now we, as homœopaths; I am very glad to say, have always stood for advanced medical education. It is a source of infinite pleasure to me to have been a member in the collegiate committee many, many, many years ago, when dear Dr. A. R. Thomas was presiding at the meeting and when he made a most forceful plea, and persistent plea in favor of an obligatory four years course; and at that time we adopted, unanimously, his recommendation and to the very best of my knowledge—I may be mistaken in making the statement—to the very best of my knowledge, the American Institute of Homœopathy then led the way with a four years course.

There is another aspect to that expansion of the curriculum. I don't care so very much, as far as I am concerned, and I don't know that anybody else cares, whether we demand eventually an A. B., or B. S., or any other kind of degree in order to admit a man to medical studies; though I do sincerely believe, from my own experience as a teacher, that I would rather lecture to a class of men and women who have just completed a thoroughly satisfactory high school course of four years, than to a lot of college graduates who if the professor happens to make a slip of the tongue, grammatical or otherwise, or if he proves himself not to be up to the very latest in some laboratory work, stick up their nose and make up their mind that it is a waste of time to them to listen to that man, and who consider it really a kind of condescension on their part to grace the student's bench. Give me, every time, the young man or the young girl, fresh from a wide awake, up-to-date high school; I would rather have them than the average college graduate. In that I may not be correct. But just bear in mind one thing: when the time comes that we must spend two-thirds of our time in teaching laboratory work, in sending the students from post to pillar, from physiological to the medical laboratory, and from the chemical to the microscopical laboratory, and from the microscopical to the pathological laboratory, and possibly may invent some more kinds of laboratories by and by—where in the world have you got the time to ground that man in your *materia medica*, in your practice, in your surgery, in your practical gynæcology and in any of the branches that go to make a reliable, successful practitioner? You can not do it. And I, for one, would not give a very great deal for the success in the

sick-room, of the young man who has no knowledge save such knowledge that he gains in the laboratory.

Now, incidentally, in discussing these things, it is necessary for us to remember such side issues as the Carnegie Foundation; and it is worth our while remembering, too, that that foundation was evidently conceived in the kindest, in the noblest of spirit, that of keeping from actual want, in old age, the men and the women who have spent their life as teachers on a meagre salary. Noble idea, brave conception, humane aspiration; yet what has become of it?

The very first report (and most of you have read it), has simply said that few medical colleges of this country are fitted to educate a student. And, by the way, friends, they forget one thing, that long before Carnegie's Foundation was thought of, aye, even before the American Medical Association put its hand to the plow, American medicine had crowded ahead under the leadership of some of those brilliant old surgeons who knew very little about laboratory work; and that to-day, when the Carnegie Foundation people deliberately insult the medical profession (their own people quite as much as ourselves), teachers from Germany come over and return to the old country, as a man did a few months ago, saying to his confreres: "Gentlemen, instead of the Americans coming to us, the time is at hand when we have got to go to America to watch the brilliant work of their specialists, especially of their surgeons." It is a great thing to be defended outside and have our own American free-born citizens throw mud at the profession which we all love.

Now at the homœopathic schools, and we draw their fire only because it happens we are the stronger of the dissenting schools and control the larger political influence, of course, a good deal of the satire is aimed; and I think it is safe to say that it is at times difficult to read those pages in the report, made in the volume to which I have referred, dealing with homœopathic institutions, and draw the line between fiction and falsehood. I know that in Chicago they gave the lie direct to some of the statements made there. I don't know how it is with you in Philadelphia. I do know that so far as the Hahnemann in San Francisco is concerned, there is hardly a word of truth in the statements in that report, and I am not afraid of being held responsible for it.

Then, coming in as another incidental feature, is the Owen

bill, the Mann bill, and other bills. Now, gentlemen and ladies. I don't propose to blackguard either the authors, the instigators, or the abettors of those bills. They are simply the legitimate, inevitable outcome of the entire effort made under the direction of the A. M. A. Why, a man could become eloquent, if he had eloquence in him, to simply pay tribute to the bravery of the conception of these medical politicians, to the relentlessness with which they followed their plans, and to their farsightedness. Now, what are the chief characteristics of the Owen bill? I have not time to go all over them; but if you read them, and the Mann bill, you must bear witness to the fact that you are utterly at fault if you can put the bill or its essential features, in a few words. It is so ambiguous that it will cover almost anything under the sun. And that was the deliberate purpose in the framing of that bill. Did you ever know the dominant school to present a bill in any State legislature but that it was capable of applying to almost every possible condition, and in the very reverse manner than you expected? That is what the Owen bill aimed to do; its ambiguity is where its treacherousness and its danger lies.

It takes the medical student before he enters college, it takes him all through college, it prescribes his curriculum, it says under what conditions he must graduate, it states what examinations he must take to have the right to practice; after that it interferes with municipal and State affairs, it takes charge of all the research work. "But that bill is dead." Not much. That particular bill which was killed in committee may be half dead; it is not quite dead, it will come to life again; and those bills will be brought up at every session of Congress, if they can prepare them fast enough, until they tire us out completely, save as we muster up spunk into the determination to say, "Gentlemen, you shall not tire us out; we fight to the last ditch;" and if we do that, they will pass no Owen bill. They will not give us a State medicine, as they are evidently bound to do.

Do you suppose Samuel Hahnemann would have been a wanderer, driven from place to place, if it had not been for that cursed State medicine that holds Germany then and today, and when necessary, under the closest grip possible? Do you suppose that those druggists, who were indebted to Samuel Hahnemann for about nine-tenths of all they ever did know at that time, could have stopped that man's dispensing if it had

not been for the blessed State regulations? No. Now, I think, friends, that we as freeborn American citizens, want neither State medicine nor State religion here. I think it was a good plan that the American Institute appointed a special committee to think that thing over and to suggest such a bill as will give the public service all the protection and advancement that it can have, but which will also protect you and me in the right to practice medicine as our conscience dictates.

What must we do, then, to be saved? First of all, we must realize the danger in which we are. I don't think there is much loyalty, much good sense, much business conduct in our playing the ostrich and shutting our eyes, burying our heads in the sand and saying, "Oh, everything is lovely and the goose hangs high."

I think anybody could do that; but the way to save ourselves and protect ourselves in our rights and our children in the rights that they shall have, is to recognize the danger and prepare to meet it.

And we can do that without any special ill feeling toward the A. M. A. We can do it without attacking anybody. There are always two sides to every question. The only thing is to feel kindly to your opponents; but kindness does not by any means necessitate our giving way where sacred rights are concerned. So we must stand by our guns and then perfect our organization. First of all, by trying to get back the men whom they have gotten from us.

Why, to give you an idea of how the thing really stands, I was in Washington, a few weeks ago, and almost every man in the homœopathic State society (just then organized), of any particular prominence, was too busy (and they met on Friday and Saturday) to stay over Saturday; either their mother-in-law was ill, or the baby was threatened with the grippe, or something demanded their immediate attention. I was obliged to remain at the hotel over Monday and Tuesday. Monday the old school society met, and a kind Providence had removed all the obstacles from the path of our colleagues. They were all there, sporting the badge of the A. M. A. I was since I left Seattle, at Spokane, there were ten or twelve homœopaths, and there were only one or two but that had joined the old school societies.

Now, as I said, I don't find any fault with that; but it is rather hard on us to have ten or twelve bright young men liv-

ing in a town, holding a diploma from one of our schools, doing a good business, being nice fellows and not a soul, even, suspect that they were or ever had been homœopaths. Now, that is not loyalty; that is a sort of thing we can not tolerate; we must get them back. When I left, I had four or five applications for membership in the American Institute, and every man I saw put his hand on high and promised that they would meet twice a month and have a good social time and then do some professional work.

You must support the agencies; support our journals. You can not estimate the value of a good journal, even though you may subscribe, and feel very kindly toward it.

On the Pacific Coast, where we are now pretty well organized, and especially in California, things would be just as chaotic as they were twelve or fourteen years ago, if it had not been for the *Pacific Coast Journal of Homœopathy*. Somebody had to do the work; somebody had to pay for it; and in our last ten or twelve years, in which time things have been particularly hard, some of our eastern friends sent us their subscriptions and helped us just that much. If Oregon starts out on the new path, and if Washington is going to do some good work in the future (and it will), it is because that little journal is sent to every man on the coast, whether they have paid for it or not. Stand by your journals! You have got a magnificent journal in your own State, which has in every sense the heartiest support you can give it; but don't forget that, aside from its literary and professional merit, there is that of a news carrier, and that is a most important element, well worthy of your support.

Your societies! Why, there is no use in my preaching to you that you ought to support your societies. Support them hard. Your colleges? The elder men present will remember how in the old times when you would find a man in country practice or in city practice a homœopath, how his eyes would light; and if he noticed a young man whom he thought particularly bright, away to that young fellow and ask if he ever thought that he would like to be a doctor. The doctor would hang to him as death hangs to a nigger, as they say in the West. He wouldn't let him out of sight; he would persuade him to study homœopathy; and there were men in those days who were never content unless they had from one to two medical students at college.

Do doctors do that now? Oh, no, we are above it. Yet you take it upon yourselves to criticise your colleges when you feel like it. If one of our people sends his son to an old school college, he will say, "I want the boy to have a good education." We have no right to criticise, unless we earn it by support; and if we are loyal to our school, how in the name of common sense can we refuse to support the colleges that give the profession the material with which to carry on its work; and how can the professors, the faculty, the dean, scour this entire country and find the men who are really ready to go into the college? You and I, the men of the rank and file, can do that, and it is our bounden duty to do it.

Now, as to the colleges, I shall have to call your attention to Flexner's article in the *Review of Reviews*; it bears upon this college question directly. He shows in black and white, by carefully compiled maps, what? That the medical profession is so overcrowded that the people ask, for heaven's sake, to help us stop educating more men. Now, I want to say to you, that that does apply to Mr. Flexner's school. It does not apply to our school; and we are not in a position to make it hard for our colleges to do their work, because we can find places for the young men and the young women who come into the colleges. We can not supply the demand, and it is no exaggeration of facts when I assure you that in the United States, leaving aside the Pacific Coast entirely, there are at the present time, or were a little less than a year ago, 3,000 openings for homœopaths, not in little four-corners, but in cities of at least 3,000 inhabitants. Shall we stop our colleges in sending out more men?

If I were an old school man, I would try to help; it is the best way of killing the schools, it is the most practical way. In California you send out 150 men there, and if they have got any gumption in them they can find openings along the coast that will make them rich, long before they have reached my time of life—openings everywhere; and why in the name of common sense should the people be made to believe that there are no places for those who are educated, and why should we submit to that statement, so long as we know that it is not true in its application to our own school?

But even more important than that is the necessity of bringing about a revival of homœopathy. Some of that good old time faith that the doctor spoke a minute ago about. Why, half

of us are dead, so far as faith is concerned. Let us study Hahnemann. Let us go back to first principles. Let us realize that we need not be ashamed of Hahnemann; that it is something to be proud of, that this man, long since dead, looked far into the future and prophesied, with an accuracy absolutely marvelous to me from a close scientific standpoint, the things that we are teaching to-day and the things that the old school men are practicing to-day.

You have got no reason to be ashamed of Hahnemann. Whenever a homœopath or pretending homœopath apologizes for Hahnemann, you can put him down as either an insincere man or an ignoramus; there is no getting away from it.

I remember, twenty years ago, reading articles saying that if we didn't practice homœopathy, or if we did not promulgate it, the old school men would. Well, they have done it with a vengeance, haven't they? Do you suppose it makes any difference in their attitude toward us or in the attitude of the masses toward us, if a Von Behring gets up and says, if we ask him how he explains serum therapy, "I have no explanation, unless I explain it on the law of homœopathy." Does it make any difference when a great Spanish writer bemoans the fact that he ever blackguarded Hahnemann in print and wishes he could take it back? No, not a particle. They are simply a few leading men who never have and never will reach the masses.

If I am mistaken, if I exaggerate facts, why is it that you never can find a first-class old school journal with an article on homœopathy speaking of homœopathy in a laudatory way? I have seen them; they have simply been ridiculing homœopathy.

Have you ever seen an old school lecturer or professor in a State university devoting time, attention and thought to homœopathy? I have, but we didn't use to get much homœopathy in the lecture. Have you ever seen any willingness on the part of any university to take into their own course, into the general curriculum, a chair of homœopathy? Have a good homœopath appointed and make the attendance upon those lectures compulsory upon their students, and make the demand that they pass an examination in that chair, as in chemistry, or anything else? No, no. I tell you, my dear friends, if we wait for that day to do the work that God Almighty has put into our hands to do, we will wait long after we are dead.

In order to make all this work effective, ladies and gentlemen, you have got to stand by your national society. You can not get out of it. You cannot say to yourself, "I am a true homœopath; I am willing to work for my profession;" if you are not a member of the American Institute. That institute which has done so much work, which stands close to the heart of every Pennsylvanian, of every Philadelphian; because, when you take the name of the very ablest men you had in Philadelphia and in Pennsylvania, with very few exceptions, they were members of the Institute. Why, you can begin with John F. Green, and come down to your best men to-day, and they were in the Institute; and why? Not only because it represents the oldest national association, but it should be to us just what the A. M. A. has proved to the dominant school—the guide, the brains.

You will often say, at least I have heard it often said in the past, "Why, the Institute doesn't do anything for us." Can it do anything for you, unless you attend it, unless you give it the numerical strength it needs, unless you put in the few dollars a year that in the sum total will give a sinking fund out of which something can be accomplished? No. For the love of your profession you want to join the Institute, you ought to join it. I have not seen at the meetings very many people from Pennsylvania. Now think of this great body, strong as you are, sending out three, four people to Detroit. It was not right. In California, at the last meeting, two or three men were there.

Now, what kind of a body would we be, what would be our cumulative power if each and every one of us joined the American Institute? Think of it, if we could say, at the end of a year—two years—"Why, the old cause is still going on; we have got a thousand additions this year, and that means \$5,000 a year." We would all rejoice. And then homœopathy, quiescent as it has been, dormant as it has been, will truly become the homœopathy militant; and if you and I do our duty, if we remember that no one else can do the work that God has put into our hands—and God knows I say it reverently—if we faithfully and loyally assume the responsibility and the burden and, like true men and true women, work it out if it takes all our life, then will come the time—if it is not in the lifetime of us elder men, then in the time of you younger men—when in the true sense of the word we can say homœopathy militant has become homœopathy triumphant.

**BUSINESS TRANSACTIONS OF THE HOMŒOPATHIC MEDICAL SOCIETY
OF THE STATE OF PENNSYLVANIA.**

(Continued from July issue.)

SEPTEMBER 21ST, 1910.

The President, Dr. Schantz, called the meeting to order at 3.17 P. M., and announced that the section on *Materia Medica* would make its report.

At the close of the report of this section the President stated that no invitation had been received for the next meeting of the Society. He then referred the matter of selecting a place of meeting for next year to a special committee to consist of Dr. Edmundson, Chairman, Dr. Bayley, of Philadelphia, and Dr. Barron, of Williamsport.

There being no further business the meeting adjourned.

SEPTEMBER 22ND, 1910.

The business meeting was called to order at 9.30 A. M., President Dr. Schantz in the chair. Secretary Pond reported a proposed amendment to Article III, Section 2, which he read. The President ordered that this amendment be held over until the next annual meeting, and that the amendment be published in the regular notice of the meeting.

At 2 P. M. the closing session of the State Society was called to order by Dr. Schantz. After the report of the Section of Homœopathic Institutes and Clinical Medicine, the President proceeded to the transaction of the business of the Society. Secretary Gramm moved that Article III, Section 2, of the By-Laws be amended by adding to the words, "If found qualified he may be elected a member," the words, "At any regular or special meeting of the Society in the interim between meetings of the Society he may be elected a member by the unanimous vote of the Board of Trustees." This amendment was laid aside to be acted upon at the next annual meeting.

Secretary Pond then moved that a vote of thanks be extended to the West Branch Homœopathic Medical Society, and the ladies associated with the members of the Society, for the excellent entertainment during the session. This motion was unanimously adopted.

It was then moved that a vote of thanks be extended to the local newspapers and to the Associated Press for their excellent reports of the meeting. Adopted.

Motion was then made, seconded and carried that a vote of thanks be extended to President Schantz for having brought the meeting to a successful issue.

President Schantz then called for report of the Committee on Lectures on Homœopathy. Dr. Massey, Chairman, reported progress, and the President appointed him to continue for another year.

There being no further business the Society adjourned at 4.33 P. M., September 22nd, 1910.

THE PREVENTION AND TREATMENT OF TYPHOID FEVER WITH ANTI-TYPHOID VACCINE.—Typhoid fever is the greatest enemy with which an army has to deal. Thus, in the Civil War, at least 80,000 cases were known to have occurred in the Northern Army alone. The importance of preventive measures is very great, and the very fact that the usual precautions against typhoid fever are impossible of execution under the conditions obtaining in camp life, enhances the value of vaccination. The use of typhoid vaccine in the U. S. Army was begun in the fall of 1908. In February, 1909, all applicants were vaccinated, the medical officers brought their wives, children and servants and a number of soldiers volunteered. During the year 1910, about 40,000 doses were administered to about 15,000 persons. Although several hundred physicians located in many different places administered this vaccine, no untoward results have been noticed from the entire series.

The injection of the vaccine produces a local reaction in the shape of redness, swelling and tenderness at the site of the injection. These symptoms last for two or three days. The general reaction appears from 1-2 hour to 6 hours after the injection and consists of headache, malaise, and other symptoms like those of an acute cold. There is a rise of temperature, which in 95 per cent. of the cases is below the 100 degree F. In the remaining 5 per cent. the reaction is more severe, rarely reaching above 103°. In the very severe cases, the reaction, in addition to high temperature, consists of chills, vomiting, diarrhea and herpes. These symptoms disappear in 24 to 36 hours, leaving no trace, with the exception of some loss of weight. It seems that when a man has already had typhoid, the chances are that his reaction will be more severe. Among 14,000 persons vaccinated, there have been reported to date, 6 cases of typhoid with no deaths, while among the remainder of the army during the same length of time, there have been 418 cases with 32 deaths. Had the entire army been vaccinated, the same rate of incidence would have given 36 cases instead of 418.—Major F. F. Russell, *Boston Med. and Surgical Jour.*

EDITORIAL

THE HOMŒOPATHIC MEDICAL SOCIETY OF PENNSYLVANIA.

BEDFORD SPRINGS, SEPTEMBER 5TH, 6TH AND 7TH.

It is seldom that the busy doctor has such an opportunity for combining profit and pleasure in a short vacation, as will be afforded at the coming meeting of the Homœopathic Medical Society of the State of Pennsylvania at Bedford Springs.



BEDFORD SPRINGS HOTEL.

Our energetic president, Dr. Wm. A. Stewart, has made a special effort this year to see that every possible arrangement should be made to promote the comfort and pleasure of the visiting members. No place could be better adapted for this very purpose than Bedford Springs. The hotel accommodations cannot be surpassed at any resort in the State, and the scenery and other natural attractions are world renowned. The hotel is situated among the eastern ridges of the Allegheny Mountains at an elevation of about 1,200 feet. It is surrounded by an estate of about 4,000 acres. On this are situated an eighteen hole golf course, bath house and swimming pool, bowling alleys and tennis courts. The springs, long noted for their medicinal properties, are also situated on the grounds. At the time of the meeting, September 5th, 6th and 7th, the climate in

this region is ideal and the wonderful mountain scenery can be seen at great advantage.

It has been the general experience at meetings of large organizations, like the State Society, that the sociability and feeling of good fellowship has always been more marked when the meetings were held at places like Bedford Springs, where all the members are gathered together under one roof and where the distracting interests found in our cities are absent. This was notably true at the meeting of the American Institute of Homœopathy at Narragansett Pier, this summer—a meeting



THE OFFICE—BEDFORD SPRINGS HOTEL.

which was one of the most enjoyable held by the Institute for many years.

The management of the hotel has arranged to give special rates of \$3.50 to the members of the State Society, and as the attendance is likely to be large, all members are urged to write and engage their rooms as soon as possible.

The scientific work of the Society will be conducted along the usual lines and will be fully up to the high standard of recent years. It is hoped that every homœopathic practitioner in the State will turn out this year to join in greeting his old friends and colleagues and to add to his knowledge of medicine and to his zeal for homœopathy.

LOYALTY!

THE definition, or meaning of "loyalty" is so well known and understood that it seems superfluous to repeat it here.

But notwithstanding it is quite apparent that disloyalty in all the relations of life is only too prevalent. Take, for example, the loyalty that should exist in religion, politics, medicine, and friendship, and how frequently are we shocked by the many instances of disloyalty to the cause, and to individuals by the display of a want of constant faithfulness and allegiance to a righteous cause or principle, or to a life-long friend.

These few remarks are intended to apply to some examples of disloyalty in the ranks of homœopathy, and to our educational institutions. There was a time perhaps when a medical education could not so well be obtained in a homœopathic college as in some well organized and endowed old school institution. But that time is happily passed, long since, and we should be proud of the fact that our homœopathic colleges have attained to a rank second to none.

In the course of the writer's personal experience he knows of at least seven instances where young men who were reared in homœopathy were educated in medicine at old school institutions, and of course have been lost to our branch of the profession.

In one instance, where the writer was called to attend a patient in a neighboring city, who had been treated by two old school doctors without the slightest benefit, when one of the gentlemen who had offered to meet me and "tell me all about it" was explaining the treatment, he named among other remedies several which had been culled from our materia medica.

I said to him, "Well, doctor, it might not be much trouble to make a homœopathic doctor of you." After the color had subsided from his face, he replied, "Well, I was raised under a homœopathic doctor, but he sent me to an old school college for my medical education, and of course I came out in the other school." That is one example of the disloyalty of which I speak—"and there are others."

If we accept Christianity as a principle of right to live and die by us, be loyal to the faith and our consciences, and not be a backslider. If the law of homœopathy be true, which any one can prove for himself, let us be loyal to it *because it is*

true, and in proving our loyalty, we should lend our allegiance not only to the law of homœopathy, because it is a law of God, as much as is Christianity; but we should also be loyal to our institutions, which demonstrate the verity of "*Similia Similibus Curenter*." Let us hold those who do not teach the truth of the homœopathic law to a strict accountability; they cannot complain of disloyalty in others, if they are not themselves loyal!

We may not all be good practical homœopaths, because we have not been able to learn all about the science, but let us try to be the best possible, and if we be loyal to the cause we will be the better physicians because we will have been true to ourselves, and true to the principles which we have at one time proclaimed to the world as our belief, and in which we have found nothing to disprove our faith. Above all let us be conscientious!

C. S. MIDDLETON, M. D.

IMPORTANT NOTICE TO SUBSCRIBERS OF THE HAHNEMANNIAN MONTHLY.

Owing to the fact that the HAHNEMANNIAN MONTHLY has been made the official journal of the Homœopathic Medical Society of the State of Pennsylvania, all physicians residing in Pennsylvania who are subscribers to the HAHNEMANNIAN MONTHLY are entitled to membership in the State Society without any additional cost to themselves. They will be admitted at the meeting of the Society at Bedford Springs in September without the payment of any initiation fee, and in future the payment of three dollars annually (the regular subscription price of the journal) will cover the cost of membership in the State Society and also entitle them to receive the HAHNEMANNIAN MONTHLY as before. Application blanks have been forwarded by mail to all HAHNEMANNIAN subscribers who are requested to fill them out at once and forward them to the Chairman of the Membership Committee, Dr. Ralph Bernstein, 37 South Nineteenth Street. Remember that if you have paid this year's subscription to the HAHNEMANNIAN it will not be necessary to send any money with the application. Simply fill out the blank and forward it at once. All applications must be in before the date of meeting, September 5th. The State Society needs you and you need the State Society. To

fail to avail yourself of this opportunity to advance your own interests and the interests of homœopathy in this State, without expense to yourself, will be an act of indifference for which no homœopathic practitioner could offer any reasonable excuse.

**A COMMUNICATION FROM THE MEMBERSHIP COMMITTEE OF THE
STATE SOCIETY.**

Dear Doctor:—

Are you willing to do something to help the cause of Homœopathy in Pennsylvania? We believe that you are, and therefore we want you to consider earnestly the following proposition:

If you are not a member of the Homœopathic Medical Society of your State we want you to become one. By the payment of Three Dollars (\$3.00), the annual dues, you can become a member at the next meeting at Bedford Springs, September 5th, 6th, 7th, and will receive the "HAHNEMANNIAN MONTHLY" as the official journal of the Society without additional cost.

By taking advantage of this proposition now you can save the initiation fee of Two Dollars (\$2.00), as this offer is for this year only.

If you are already a member, we want you to participate in the campaign we are making for 300 new ones by procuring another member yourself. Will you help us?

Mail enclosed application blank at once, if you wish to take advantage of this offer, to the Chairman of the Membership Committee.

Fraternally yours,

RALPH BERNSTEIN, M. D., Chairman, Phila.

JOHN A. FISHER, M. D., Phila., Pa.

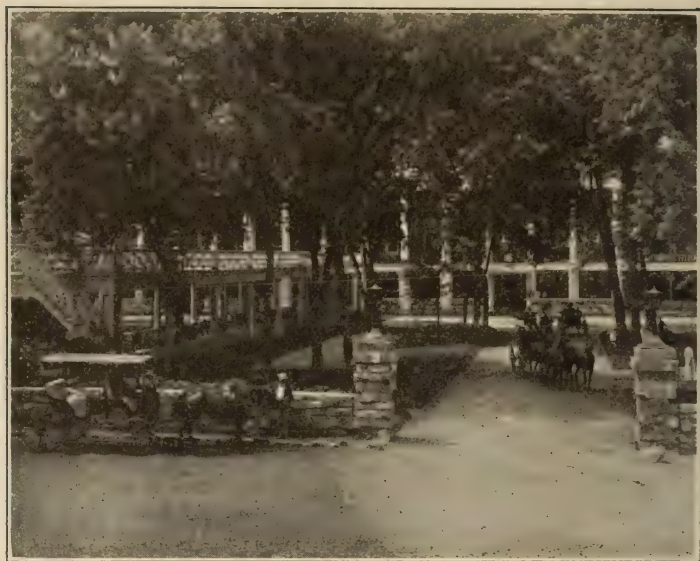
C. W. SAMPLE, M. D., Pittsburgh, Pa.,

G. HARLAN WELLS, M. D., Phila., Pa.

Membership Committee.

**TO THE MEMBERS OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA.**

There is every indication of a big meeting at Bedford Springs. There are more whole families going than to any State meeting in years. Commissioner Bigelow has a large



THE ENTRANCE TO BEDFORD SPRINGS HOTEL.



VERANDA—BEDFORD SPRINGS HOTEL.

force working on the road leading to Bedford. The hotel rates are good from the Saturday before the meeting to September 15th.

The Bedford Springs Hotel is run under the same management as that of the Flagler houses on the Florida east coast. The springs analyze about the same as those at Carlsbad and are visited by many Americans who also frequent foreign resorts. The weather in the mountains has been delightful this month. For several days past huge log fires were burning in the hotel all through the day. Remember the dates, September 5th, 6th and 7th. Come.

WM. ALVAH STEWART, *President.*

PUERPERAL ECLAMPSIA.—From an experience with ninety cases of this disease, Zinke concludes that all cases of puerperal eclampsia are not alike; much depends upon the extent the kidneys and liver are involved. The so-called malignant form, as the term implies, is fatal from the beginning; the so-called benign variety ends in recovery, sometimes in spite of the treatment adopted. The variety of mean gravity is, without doubt, favorably influenced in its course by careful and judicious treatment. The prognosis for both mother and child is much worse when the convulsions supervene during pregnancy. The prognosis of intrapartum convulsions is much better, and in the postpartum variety is best of all. The most important part of the treatment is prophylaxis when prodromal symptoms exist. *Veratrum viridie* in sufficiently large doses is the remedy par excellence to reduce the blood pressure and pulse frequency. Hot packs and hot baths judiciously employed, and free catharsis, strict milk diet and the recumbent position, are of almost equal importance. If the patient is very restless he advises chloral by the rectum. Chloroform and morphia he regards as sources of danger. The antitoxin treatment (the thyroid, parathyroid extract and nephren) may play an important part in the future in the treatment of puerperal eclampsia. Saline and sugar instillations can do no harm and may do a great deal of good. If of late years the maternal mortality has at all been reduced, it is the direct result of careful prophylaxis and intelligent medical care. Surgery contributed very little to it. Decapsulation of the kidneys, manual, balloon and metal dilatation, especially the old-time accouchement force are, in the opinion of the writer, hardly justifiable and should have no place in the treatment. If the symptoms are very threatening and the above medical treatment fails promptly to ameliorate the condition, an early delivery may be desirable.—*Amer. Jr. Obs., Vol. 63, 217.*

GLEANINGS

THE VALUE OF PHENOSULPHONETHALEIN IN ESTIMATING THE FUNCTIONAL EFFICIENCY OF THE KIDNEYS.—Goodman and Kristeller (*Surgery, Gynecology and Obstetrics*) have studied this latest method of estimating the functional activity of the kidney, originally advocated by Rowntree and Geraghty. The excretion of the drug was tested in healthy individuals, in various irrelevant diseases, in acute and chronic nephritis, in prostatics, and in some surgical conditions of the kidney. The drug is injected hypodermatically and its excretion in the urine tested for by a chemical and colometric technique, for the details of which the reader is referred to the original article.

The authors believe that the elimination of phenolsulphonethalein goes hand in hand with the elimination of the normal products of metabolism and that for this reason the method will surpass any hitherto devised.

They conclude that the drug possesses the following advantages:

1. It does not readily decompose in solution and can be sterilized by boiling.
2. The dose required is small, 1 c.c. of solution containing 0.006 gm. of the dye.
3. The injection is painless, and is not followed by irritation if the solution is sufficiently alkaline.
4. It is excreted entirely by the kidneys.
5. It can be demonstrated in the urine in from 3 to 10 minutes after injection.
6. From 50 to 70 per cent. is excreted during the first two hours.
7. The drug lends itself to accurate colometric measurement.
8. The quantity recovered in a given specimen is not influenced by the volume of urine.
9. The presence of pus, phosphates, bile, and indican does not interfere with the colometric estimation of the drug.

THE VALUE OF THE WASSERMANN REACTION.—C. Fraenkel (*Med. Klinik*, April 2, 1911) in a clinical lecture on the subject, emphasizes the necessity of extreme accuracy in the performance of the serum reaction in syphilis. Even a slight variation in the quantity of the various fluids or materials employed in the test will lead to an error in reading the result. In the author's laboratory two assistants and one woman who has devoted some years to this work, are in charge of the test. Thus far the various schemes for simplifying the test have not proved satisfactory. This is true of the methods recommended by Noguchi, Von Dungern, Hecht, Bauer and others. Even a slight deviation from the original method sometimes will prove deceptive in its results. The only difference which is allowed in the author's clinic is that described by Margaret Stern, in Breslau. Instead of guinea-pig complement, Stern employs

the serum of the patient himself as complement. Just as soon as the specimens of blood are received at the laboratory, they are placed in a centrifuge and the serum thus obtained is separated into two portions—a small quantity is taken to serve as complement, while the rest is treated as in the original Wassermann test. In most cases the results of the test, as performed according to Stern's modification, are identical with those obtained with the older Wassermann method. In other instances, however, there are contradictory results. In these cases a second specimen is asked for, and control tests are made. Both the old and the new method are employed parallel in any event. The Stern test is found to be positive a little earlier in the disease than the Wassermann. In the third week after the primary lesion appears both tests are usually positive.

As regards the results of the test in clinically positive cases, the test was positive in 528 out of a total of 842 such cases. It seems, therefore, that in the primary stage and in the stage of early latency there are 50 per cent positive results. On the other hand, in the secondary stage, in cases of paralyses, 75 per cent. positive results are obtainable, and finally in the tertiary stage and in tabes 65 per cent. of cases are positive. In cases of doubtful syphilis only 45 per cent. positive cases were noted. It is interesting to note that prostitutes who had no symptoms whatever at the time, showed a positive reaction in over 75 per cent.—*Med. Review of Reviews*.

HOMOEOPATHIC PROCEDURES OF PASTEUR AND HIS DISCIPLES.—In a very remarkable pamphlet, entitled "Constitution of Therapeutics," Dr. Pierre Jousset, after having studied and analyzed the procedures of Pasteur, thus expresses himself:

"The work of Pasteur rests upon two principles:

"1. To treat an infectious disease by the microbic secretion which gives it birth.

"2. To employ this secretion in an attenuated dosage.

"Examine these fads in the light of the therapeutic doctrine formulated by Hippocrates, and we will find that they are dominated by the law of Similars.

"That which produces stranguary in the healthy man cures it in the sick man," said Hippocrates.

"That which produces rabies, cures rabies; that which produces diphtheria, cures diphtheria," says Pasteur.

"And Pasteur, like Hippocrates, can give as formula of the law of indications: Similia Similibus Curantur.

"The attenuation of the viruses," continue Dr. Jousset, "is a necessity of the Pasteurian immunizations because the very violent culture would kill the patient instead of immunizing or curing him.

"This attenuation of the microbic secretions corresponds to the attenuation of medicines proposed by Hahnemann. Both of these methods were born of the same thought: To avoid the dangers and aggravations of too active substances.

"In front of these characteristics of Pasteur's therapy one asks oneself how the author, who very probably ignored Hippocrates and Hahnemann, arrived at the same conclusion that did these two good men.

"The story already mentioned about chicken cholera answers this question, and makes us understand how Pasteur, guided by experimentation, arrived to reproduce a therapeutic formula that Hippocrates probably derived from tradition.

"We do not need this example to know that several paths lead to truth; but we think that the more numerous and concordant are the demonstrations of truth the more unattackable becomes that truth.

"Hippocrates posed the therapeutic doctrine; Hahnemann generalized the application of the law of Similars by study of drugs on the healthy body, and the attenuation of doses, and Pasteur brought to the support of this therapy, still disputed, the irrefragable argument of laboratory science.

* * *

No more than Dr. Jousset, do we think that Pasteur knew of the experience so conclusive of his forerunners. We even believe that that academician, *who was not a physician*, in no way perceived that he had penetrated into the sumptuous domain of homœopathy. This ignorance was, moreover, very favorable for his scientific fortune, because had he, in relating his experiences, declared that they came from homœopathy, that word, which has already been the cause of so much ostracism, would have provoked in the breast of the Academy of Sciences, where medicine is represented, an explosion of anger which would have wrecked the cupola of the Institute.

His colleagues of the medical section, so admirably described by Trouseau, would have anathematized him, and instead of being decorated he would have remained an obscure savant, victim of absurd prejudices and scientific intolerance.—*Medical Century*.

DETACHMENT OF THE RETINA.—A man of thirty-eight, who had first consulted the author six months before on account of monocular blindness of sudden onset and four months' duration. A segment of the retina representing the lower quadrant, but not extending over their discs diameter from the nerve head, was completely detached. The apex of the detachment overcapped half of the optic disc. There was moderate vitreous opacities. The anterior segment of the globe was normal, as was the fellow eye. The general health was good, and syphilis was excluded. The refractions was low hyperopia. Subretinal growth was excluded. Iodide potassium was given in increasing doses, saline cathartics, pilocarpine sweats, and Turkish baths, but the condition had remained unchanged for the three months of treatment, and the three months following. Operative interference was declined, first and last. The provisional prognosis made at the first examination was confirmed by the end result of this unfortunate case, which for want of a better designation, must be classed as idiopathic retinal detachment.—Dr. R. Libby, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

TOXEMIA OF PREGNANCY.—The case reported was a primipara of thirty-eight, who had been married nine months, now had a child nine days old. A month before she had been sent to the hospital, on the discovery of 30 per cent. of albumen in the urine. There was no headache, convulsion nor

coma. Under treatment the albumen was reduced to 17 per cent., but when it rose to 20 per cent. the woman was delivered by aid of forceps and under general anesthesia. After this the first impairment of sight was noticed in inability to read R. V.—fingers at 8 feet. L. V.—fingers at 10 feet. The ophthalmoscope showed 8 or 9 distinct spots of yellowish red-retinal exudate about half the size of the disc.

Another case reported a woman, 6½ months pregnant, aged 43, who had once aborted, and was of the myxedematous type. She complained of dimness of vision for the previous two weeks, being barely able to recognize faces. There had been no former ocular disturbance. There was no headache nor eclampsia. The urine excreted was but 13 ounces in 24 hours, with one-fourth the normal urinary solids, and very abundant albumen. The ophthalmoscope showed marked double hemorrhagic neuroretinitis. Five weeks after the prompt induction of premature labor, vision and accommodation had returned to normal. Two months later every trace of retinal exudate had disappeared.—Dr. J. J. Pattee, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

TRANSPLANTATION OF SKIN FOR PTERYGIUM.—A case was presented illustrating the transplantation of a piece of skin on the eye ball to prevent the return of a pterygium. The pterygium is first dissected from the cornea, being careful to stop where the conjunctiva and the cornea unite. Then, by slightly undermining the pterygium, it will recede, leaving the sclera exposed. From behind the ear a very thin piece of skin is shaved off and trimmed while on the razor to the desired size. This piece of skin must be just as thin as it is possible to cut it, otherwise there will be trouble afterwards. The piece is then floated from the razor directly upon the uncovered sclera. Then two stitches are passed through at each posterior corner of the graft, upwards and backwards, anchoring it to the conjunctiva so that the pterygium cannot push it forward on to the uncovered corneal wound. This is the most difficult part of the operation, but so far has been necessary. The author believes he has solved the problem in another way, which will eliminate these two stitches, which will make the operation exceedingly easy, where now it is rather difficult. In time the graft disappears, the cornea has time to regenerate itself and become absolutely transparent.—Dr. Clark W. Hawley, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

EARLY OPERATION IN ECTOPIC PREGNANCY.—A reaction has set in against the suggestion of Robb, Simpson and others to defer operation for ruptured ectopic pregnancy until a time when the patient has somewhat recovered from the immediate effects of the accident. Barrett (Chicago) considers the pathological possibilities of the conditions present, and especially the dangers confronting a woman who has experienced one rupture and is constantly threatened by another. He says if the primary rupture is incomplete, a subsequent rupture is the rule, or there may be a series of lesser hemorrhages. If the patient does not succumb to loss of blood, the presence of blood and the ovum in the abdominal cavity act as

irritating foreign substances, leading to loss of function and pathological changes in the viscera, and perhaps to local or general infection, thrombosis, embolism, &c. The dead ovum is more harmful than the live one as regards infection. Patients in good condition, with or without rupture, are almost certain to have future trouble and should be operated as soon as consistent with good work. Patients in bad condition, with concealed hemorrhage, have collapse in proportion to the amount of blood lost, and rational treatment must look with certainty toward the stopping of future hemorrhage. Opening the abdomen and controlling internal hemorrhage, if done rapidly and with care, is little tax upon the patient. The clinical experience of the world and a study of the pathology of this condition point to the dangers of delay. The more desperate the case while the patient yet lives, the greater the call for immediate action.—*Amer. Jr. Obs.*, Vol. 63, 975.

THEODORE J. GRAMM, M. D.

THE UNFAVORABLE INFLUENCE OF PREGNANCY UPON CHRONIC PROGRESSIVE DEAFNESS.—Brickner (New York) says the influence of pregnancy on women who are suffering or have suffered from otosclerosis or chronic progressive deafness is a deleterious one, although the pathological process is by no means clear. The deafness increases immediately upon the advent of pregnancy, grows worse during gestation and remains permanently worse after delivery than it was before pregnancy began. Repeated pregnancies have the effect of rendering the hearing progressively worse. The interruption of pregnancy may preserve the hearing existing at the time; but it may accomplish no more than this; that is, the hearing may subsequently continue to deteriorate. The obstetric treatment is the induction of abortion early in pregnancy after it has been established unquestionably that the pregnancy is causing the hearing to become diminished. The right to render these women sterile is one that depends upon individual cases and is a debatable question.—*Amer. Jr. Obs.*, Vol. 63, 983.

THEODORE J. GRAMM, M. D.

WHAT EVERY WOMAN SHOULD KNOW TO PROTECT HERSELF FROM DEATH BY CANCER OF THE WOMB, according to a committee's report to the New York Obstetrical Society, is that cancer of the womb is at first a local disease. Thus far the only reliable cure is operation, but in order that the operation may be attended with best results, it must be done early. Hence the great importance of detecting cancer at its very beginning. There are no positive signs of the onset of the disease, but there are symptoms which are suggestive and should lead the woman to consult reliable medical authority. The most important of these is a blood or blood tinged discharge occurring independent of or at other times than the monthly period. This staining or spotting may be brought on by exertion or slight injury as intercourse or the introduction of a douche nozzle. The discharge may at times be thin, pale, yellow or watery. Any change in the monthly period of a woman at any time of life demands examination, particularly if it occurs at the time of the change of life. Regarding the menopause, a harmful error is common among women, and is even shared by not a few

physicians. It is thought that the change of life is naturally accompanied by excessive flow at the monthly period and that there may be a flow even between the periods. Such an opinion is totally wrong. The natural occurrence at the change of life is a decrease of the flow with longer intervals between the periods until they cease entirely. Hence any increase in the amount of the flow or any increase in its frequency is wrong and demands a most careful investigation. This excessive bloody flow or too frequent flow or a watery discharge does not always mean cancer. It may be due to other causes, but often this can be known only by a scraping and a microscopical examination of the scrapings or of the so-called ulceration of the neck of the womb. Hence any offhand statement, even by a physician, that the irregular flow has no significance, should not be heeded. Too great emphasis cannot be laid upon the two foregoing statements, for many a life has been needlessly sacrificed by the opinion that the menopause is naturally accompanied by all kinds of discharges and bloody flows. Pain and loss of flesh and strength are not early symptoms of cancer of the womb. They may not even be present when the disease is well advanced. Women of all ages may develop cancer of the womb, but it is most common between 40 and 50. The actual cause of cancer of the womb is still unknown. But it is known that constantly kept up irritation may lead to a development of cancer. Hence a woman should not neglect the attention of injuries or any local disorder of her generative organs.—*Amer. Jr. Obs.*, Vol. 63, 1076.

THEODORE J. GRAMM, M. D.

IS SCARLET FEVER A LOCAL DISEASE?—Schumacher believes that scarlet fever is a local disease involving the naso-pharynx. All the constitutional symptoms are due to the toxæmia produced by the streptococcus infection of the throat and nose, which is a complication of the pure scarlet fever infection. The more severe the local conditions of the naso-pharynx the more severe the constitutional symptoms. The germ causing scarlet fever is no doubt to be found in the exudative membrane, covering the tonsils and adenoids and also in the lymph channels, discharges from the naso-pharynx and ulcers about the mouth and nose. The rash which is caused by the toxæmia travels to and over the surface of the body by way of the superficial lymphatic system and not by the blood current. The contagion of the disease is not found in the desquamated skin directly, but is found in the discharges from the naso-pharynx, ulcers, suppurating glands, and ears of persons suffering from the disease. The contagion of the disease ends with the cessation of these discharges. Desquamation is not a positive sign of recent scarlet fever, since scarlet fever can exist without any subsequent desquamation; and desquamation may be the result of a number of constitutional diseases of long duration, as pneumonia and tuberculosis; or some local inflammatory condition of lengthy duration, as sunburn or ivy poisoning; or the ingestion of some drugs, as arsenic; or the external application of strong antiseptics, as carbolic acid or formaldehyde gas. The complications of this disease are due to the toxæmia or to direct infection of the streptococcic germ with the accompanying scarlet fever cause.—*Amer. Jr. Obs.*, Vol. 63, 194.

THEODORE J. GRAMM, M. D.

THE INFLUENCE OF AUTOMOBILE RIDING UPON WOMEN.—Edgar has studied this subject rather fully. His observations show that the rapid displacement of air strikingly increases the red blood cells and hemoglobin. The same results were seen in anæmic subjects. The urinary findings indicated, in general, increase of nutrition. Sleep was improved more than attributable to the fatigue of the long journey, doubtless due to the outdoor life. On the other hand we are safe in assuming that there is more traumatism, more vibration, more jars associated with the motor than with the horse-drawn vehicle. This is particularly true with cars having an overhanging rear seat, where the woman usually sits. Another fact is that the distance traversed at one sitting is almost invariably greater in the motor car. The most important difference between the two types of conveyance is the effect upon the nervous and circulatory system. Some individuals cannot adjust themselves to the use of the automobile for more than short runs at low speed. Such persons sit with tense muscles, rarely relaxing, the tenseness increasing with the passage of an approaching car. They are constantly on the lookout for trouble, and innumerable possibilities of wreck are conjured up from any objects passed. Hemorrhoidal conditions are invariably aggravated by constant motoring. The same is true of patients having pelvic or abdominal congestion or inflammation in general. Patients having backward displacement of the uterus always suffer from motoring to any extent. The unfavorable influence of the automobile upon pregnancy has been somewhat exaggerated. In women having relaxed uterine supports with the associated tendency of the uterus to sink low in the pelvis, miscarriage may be induced by excessive motoring. To many women of middle life who have had an abnormal menopause, have taken on weight so as to make locomotion and exercise difficult, or are enfeebled by unoperable causes, the automobile has proved a blessing.—*Amer. Jr. Obs.*, Vol. 63, 995.

THEODORE J. GRAMM, M. D.

FIBROMYOMA OF THE UTERUS COMPLICATING PREGNANCY.—From the study of one hundred cases in the New York Lying-in Hospital, Lobenstein concludes that a myomatous condition of the uterus predisposes to sterility. The tendency to abortion is increased. In the bad cases, both spontaneous and artificial abortion may prove difficult to handle and most dangerous to the life of the individual. In the severe cases, where it is difficult to gain access to the cavity of the uterus proper and in the presence of real hemorrhage, laparotomy is the operation of choice. The great majority of cases that do not abort early proceed through pregnancy, labor, and the puerperium with few or no symptoms; therefore operative interference is but rarely indicated during pregnancy, and it is, as a rule, meddlesome midwifery. He makes this statement cautiously, for some may believe it open to criticism. The operation of myomectomy during pregnancy is just now very popular, but he believes it is but rarely indicated. The results of myomectomy are none too good. Occasionally it may be wise to do a myomectomy or a hysterectomy, but, as a rule, conservatism should be the watchword. Nature accomplishes wonders at the time of labor, overcoming any apparent dystocia, in a large percentage of cases. When delivering, avoid all possible trauma to the tumor. Finally, with the development of the

symptoms of gangrene in a myoma, during the puerperium, operate early to save the life of the patient.—*Amer. Jr. Obs.*, Vol. 63, 67.

THEODORE J. GRAMM, M. D.

SALVARSAN IN SYPHILIS.—Three methods of injection are available: The subcutaneous, the intramuscular, and the intravenous. We have entirely discarded the first on account of the relatively large number of local infiltrations and necroses. The drug may be given intramuscularly in alkaline solution or in oily suspension. If given in alkaline solution it approaches in rapidity of action and, in effectiveness, at least equals the intravenous method. However, as we have already remarked, the pain after such an injection is usually so severe, and the number of patients who are willing to submit to reinjection by this method are so few, that we are inclined to give it in alkaline solution but rarely.

The intramuscular injection of suspensions of salvarsan in oily menstrua, such as paraffin oil, sweet almond oil, and sesame oil, is a method which is especially adapted for office use. The drug is absorbed more slowly than if injected in alkaline solution or intravenously, exerting its influence more slowly on the lesions. It seems to us to be a method indicated only where the intravenous injection cannot for one reason or another be given. The pain following the injection in this form is usually slight, not often incapacitating the patient from immediate work. Occasionally, it is followed by severe pain and stiffness, though not nearly so frequently as in the former method.

We consider the intravenous injection of a clear, alkaline solution of salvarsan the method of choice for the routine exhibition of this drug. We have injected more than a hundred patients by this method, and find it painless, rapid in action, and, in the vast majority of the cases, unattended by harmful aftereffects. The injection can be repeated at least twice. The acid solution of salvarsan should never be used.

We admit the time has not yet come, nor perhaps will it for many years, to make a dogmatic statement concerning the best method of procedure in the newer treatment of syphilis. In this connection it is always well to bear in mind that mercury has been in use for centuries and there is still no unanimity of opinion concerning the best drug or method of application of it. However, with our present knowledge and experience we recommend an initial intravenous infusion of 0.5 or 0.6 gramme of salvarsan for adults of normal average weight, which may be repeated twice, and should in every case, unless otherwise contraindicated, be followed by a thorough course of mercurial treatment, preferably by injection of the insoluble preparations or by inunctions.

We feel that it is not advisable at the present time to give a greater dose than 0.6 gramme at one time to an adult of 150 pounds or more. If the patient is in poor physical condition, or under the average weight for his size, it is prudent to give a smaller dose, say, from 0.4 to 0.5 gramme. Children have been injected infrequently intravenously. It would seem that (theoretically) an infant in whose blood stream a relatively large amount of salvarsan was unloaded at one time might succumb to an overwhelming intoxication caused by the liberation of endotoxines when the

huge masses of spirochætæ that exist in all the organs and tissues are destroyed. This must be kept in mind in treating infants.

The effect of salvarsan injections on the course of the syphilitic infection, as evidenced by the outcome of the Wassermann test, is an exceedingly interesting and important phase of the question. In our previous paper we reported the results of numerous tests in about forty of the patients. Most of these patients were injected intramuscularly, some subcutaneously. A very small percentage of the cases gave negative reactions, and some of the latter have since given positive reactions. However, since we have adopted the intravenous method as a routine procedure, the percentage of cases that have remained positive after one or two intravenous injections is smaller than with our first series of cases. Unfortunately, we are not in a position to present figures in this connection, because it is our custom to begin mercurial treatment within a few days after the patient has received the intravenous injection of salvarsan. By the combination of salvarsan and mercury we have been able to bring about a negative phase in the vast majority of our cases within a month or two. As to the permanence of this negative phase we must await the verdict of time. It is significant that many cases of tertiary lues, latent or active, with a positive Wassermann test in spite of numerous mercurial cures, promptly became negative after salvarsan therapy. In considering this phase of the question in the future, for this is surely a problem of the future, it should be taken into consideration whether the drug was given intramuscularly or intravenously, the dose, the stage of the infection, the nature of the lesion, and the period of time that has elapsed since the last injection of salvarsan.

CONCLUSION.

In conclusion, we feel that salvarsan has a large field of usefulness, acting beneficially on all forms of active specific lesions. The general condition of the patient is improved markedly, cachexia disappearing, while the pain of specific lesions of the bones, throat, etc., remits with marvellous rapidity. It is especially indicated in all cases of primary and secondary syphilis to destroy rapidly the spirochætæ, thus lessening the danger of transmitting the disease to others. It is indicated in other cases of lues that are refractory to or have an idiosyncrasy for mercury, and in cases of mercurial nephritis. Where important structures are involved, and destruction is impending, salvarsan should be given promptly. Among the contraindications may be mentioned organic nephritis, diabetes, ulcer of the stomach, organic heart disease of any form, aneurysms, cerebral hemorrhage, marked arteriosclerosis, chronic alcoholism, and extreme old age.

The debatable question, it seems to us, is not when to use mercury and when to use salvarsan, for there is no antagonism between these two drugs. From our present knowledge we recommend strongly the use of both in the treatment of syphilis. First an intravenous injection (or two injections) of salvarsan, which should be followed by a thorough course of mercury, preferably by injection, and, finally, if necessary, an additional injection of salvarsan.

We now have two powerful drugs at our command for the treatment of lues, and both should be used in the fight against this menace to the human race.—Goldenberg and Kalishis, *New York Medical Journal*, August 12, 1911.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

GUNPOWDER AS A REMEDY.—In a recent interesting article appearing in the *Homoeopathic World*, a layman speaks extensively about the prevalent use for many years, indeed, so long back that it has become a tradition—of *black gunpowder* by the peasantry of England as a remedy for all sorts of blood poisoning and skin troubles. The fact is—and he does not overlook it—that as a combination powder containing sulphur, carbo veg. and kali nit, a better combination for the above conditions could not be thought of if one must use crude drugs and combination tablets.—(Ed.)

MEDICAL CENTURY FOOTNOTES.—For the lingering effect of blows, concussions, falls and accidents generally, give *Arnica* 6th or 30th internally.

Dribbling of urine in old or elderly patients, try *Ferrum phosphoricum* 6x.

Pain where a bone has been broken may be relieved by *Symphytum* 3, internally, and the application of the Tincture of *Symphytum* diluted about one-half with water.

A harmless, yet efficient method of moving the bowels and bladder, is said to be: "Dissolve three teaspoonfuls of pure sugar of milk, in hot water, and take before a meal, preferably breakfast."

Threatened phthisis, profuse night sweats, loss of flesh, tickling cough, paroxysmal and exhausting, with loss of strength, a deep brown pigmentation of the skin.—*Kali carbonicum* 6, followed by *Tuberculinum* 200 and *Lycopodium* cured.

Persons annoyed by being always compelled to hurry to stool after eating may find relief in a few doses of *Aloes* 6.

Probably the best prescription for diarrhœa (in absence of marked guiding symptoms) is *chininum arsenicum* 3x tablets, about three every two hours.

Regardless of what else is done *Succus calendulae* is the best external dressing for cancer, running sores, blood injuries, etc.

Rheumatic pains that come on with cool, damp weather require *Rhus toxicodendron*.

The average case of toothache in decayed teeth requires a dose of *Mercurius vivus*.

Diarrhœa caused by fruit, *China*.

Olive oil is one of the best general antidotes to poisoning.

For quick relief of piles—Hæmorrhoids—insert a *Hamamelis* and *Aesculus* suppository. They have a really wonderful action in many cases.

For neuralgia-like pain in rectum *Ignatia* may be the remedy.—*W. A. Dewey*.

PENTHORUM SEDOIDES.—Virginia stone crop has much coryza and sneezing with a *distressing sensation of constant wetness of the nose, which no amount of blowing will relieve*. This symptom has been verified and was brought to notice by Morrow and mentioned by Farrington in his Clinical Materia Medica. Boger, in one case of amenorrhea, guided by other symptoms, restored the menses with this remedy.—*Hom. E., E. and T. Jour.*

Dr. G. W. Harvey, Milville, Cal. (*Cal. Ec. Med. Jour.*, February), finds that bryonia is as sure a prophylactic in measles as *belladonna* is in scarlet fever, *echinacea* for diphtheria, *pulsatilla* for whooping cough, and "malaria is prevented and the patient made immune in any climate by *arsenicum iodide* 3x. Consumption is, properly speaking, a disease of inanition or starvation, and must be combatted with a food instead of medicine. This food we have in pure olive oil, which promotes a normal action of the liver, liquifying the cholesterine and supplying the fatty acids necessary for perfect assimilation, etc., etc. Consumption is no longer possible as long as the oil is given in sufficient quantities."

YEAST FOR PRURITIS VULVAE IN DIABETES.—Carnot in the *Progress Medical* tells of treatment of pruritis vulva in diabetes based on the fermentation of glucose by yeast. A lotion is applied to the vulva, and a vaginal injection made of fresh brewer's yeast, one-table-spoonful in a liter of water, is given. This not only prevented the irritation of the inflamed parts by the irritating contact of the sugar, but as a result of the fermentation a weak solution of alcohol was formed, which had an antipruriginous and tonic action on the tissues. The injections and lotions are to be used twice daily, and this is the only treatment. In the case cited, the pruritis ceased on the second day, the inflammation subsided and the ulcers rapidly healed. Carnot suggests that this simple method should be tried in the various external manifestation of diabetes—certain sores, gangrene, and stomatitis—wherever the sugar can be made to disappear by fermentation.—*June North American*.

PULSATILLA AND SPONGIA.—Dr. Hinsdale states that a tincture of *Pulsatilla*, if correctly made, should contain iron. This can be shown by chemical tests. A competent chemist recently obtained various tinctures of this drug from a half dozen homœopathic pharmacists and made chemical tests to determine as to whether or not they contained iron. Out of the six tinctures examined only four gave a test for iron. Some physicians claim that *Pulsatilla* has always been a disappointment to them. The explanation may be due to the fact that they used a poor and improperly prepared preparation. Likewise, a good preparation of *Spongia* should show a test for iodine. Different preparations of *Spongia*, obtained from different houses, were examined, and all reacted to the test except one.

The physician who uses this particular brand of *Spongia* must not be disappointed with failures. It is not supposed that it is the intent of this particular pharmacy to defraud, as a grade of sponge containing iodine is no higher in price than any other sponge, yet to secure a good preparation the sponge used should first be analyzed chemically to determine if it contains what it should.—*Hom. World.*

TOOTHACHE.—Odontalgia or toothache is a very painful and troublesome and distressing disease. Its causes are various. It may be due to the decay of the teeth and exposure of the nerve; also due to exposure to cold. Often it is purely of nervous origin.

Its treatment with homœopathic remedies is marvellous. For the convenience of our readers we describe here the principal remedies with their symptomatic indications:

Aconite.—It heads the list because toothache is very frequently due to recent exposure to cold, for which aconite is the leading remedy. The patient is afflicted with indescribable pain and suffering.

There is restlessness and tossing about, throbbing pain, determination of blood to the head. When aconite fails, chamom. or coffee may be given.

Arnica.—Toothache from hurt or blows. After the extraction of a tooth it arrests hæmorrhage and heals the wound. Throbbing toothache with swelling of the gums.

Coffee.—It is in cases of purely nervous toothache that coffee is indicated. The patient is frantic with pain, crying and trembling. The pain is relieved by holding cold water in the mouth, striking, jerking, intermittent pain, aching when chewing.

Chamomilla.—It is more frequently indicated in children and nervous patients who drink a good deal of coffee, in females before and during menses. Pain in hollow of teeth, after taking cold when in perspiration when the patients are very irritable, cry much. The pain is unbearable, in hollow and decayed tooth, aggravated at night and after food or drink or drinking anything warm, much worse after drinking cold water and applying it to the tooth.

Cheek and gums are swollen and glands are also swollen.

Nux vom is also a good remedy for toothache. It is suitable for those who lead a sedentary life, often irritable, addicted to coffee and alcohol and often subject to cold, jerking, shooting pain, tooth seems loose, is hollow.

Nux mosch. is useful in toothache of children and pregnant females. Hysterical and nervous patients. From cold and living in damp places. Warm water or warm application soothes the pain at once.

Antim. crud. is very useful in pains in hollow teeth, of jerking, tearing character. Pain increased in the evening, from cold water and after eating; better in open air.

I know of a gentleman who was frantic with pain after eating, anything cold touching the tooth sharply penetrated into the brain and he was in an agonizing condition. One dose of *Antim. crud.* put him to sleep and he was cured of his toothache forever.

Pulsatilla may be thought of in cases of females and children of a mild and tearful disposition. Stinging pains in decayed tooth. Tearing and

jerking aggravated by cold water and heat of bed, warm room and anything warm in the mouth. Better by open air, cold water.

Mercurius is a very useful remedy in pain in decayed tooth and swelling of the gums. Drawing, tearing pain extends to the ear. Pain is aggravated at night and from heat of the bed, after eating and drinking cold water and from damp air. Painful swelling of gums and cheek.

We treated many cases of toothache very successfully with *merc sol* or *viv*, both high and low potencies.

Belladonna is frequently useful in children and females. When the teeth and gums are swollen and painful, when there is ulcer in the root of the tooth with jerking and tearing pains, *belladonna* is the suitable remedy. In the beginning of a gum boil or commencement of a violent toothache *belladonna* is indicated.

Bryonia.—Toothache from cold, sensitiveness to tooth aggravated by movement, cold application and smoking tobacco; sometimes relieved by cold water. Ameliorated by warmth. It is adapted to irritable and obstinate people.

Rhus.—Pain increased in the evening or at night, gums swollen and sensitive to cold air, throbbing and tearing toothache. It is caused by taking cold, exposing to the rain and night air. The pain is better by applying heat.

Staphysagria.—Decayed black and hollow tooth. Gums ulcerated and swollen. Throbbing pain extending to the ear, worse from open air and drinking water or any liquid cold at night towards morning.

Calc c.—It is useful in dental fistula. Toothache from taking cold and aggravated by exposure to cold. Patient can neither bear cold nor warm drinks. All kinds of pain pricking, jerking, gnawing, throbbing. Gums swollen and ulcerated. It is useful in young people and pregnant females.

Magnesia Phos.—Pain worse at night; drives the patient out of bed. Aggravated by cold and better by hot application and warm water in the mouth.

Natrum sulph.—Toothache better by holding cold water in the mouth. It is worse by hot water or any other hot drink in the mouth.

Petroleum.—Abscesses in the root of the tooth. Pus thin and offensive smell. Lower jaw is swollen and painful.

Plantago Maj.—Is considered by many as a specific for toothache. We often find external application of mother tincture dipped in cotton and applied to the diseased tooth gives prompt relief. Aching and shooting pain in decayed tooth, left side of the face red and swollen.

Sepia is used in chronic toothache and also in pregnant females.

Sulphuric Acid.—Pain begins slowly and generally increases in intensity and then suddenly ceases.—P. C. MAJUMDAR, M. D., *Indian Homoeopathic Review*.

MATERIA MEDICA KEY NOTES.

By Frederick Kopp, Greenwich, N. S. W. *Asclepias Syriaca*, its Urinary Symptoms.—Primarily the drug produces an enormous increase in the secretion of urine, often over three times the normal amount. Its secondary

symptoms are scanty urine, accompanied with headache, vertigo, stupidity and dullness. There is often a burning sensation in the urethra when urinating. It has the power of increasing the solid matters of the urine, and it is of priceless value in the uræmia, where the symptoms are first *profuse* and afterwards *scanty* or *suppressed urine*. It is also useful in post-scarlatinal dropsy, general dropsy from heart disease, and dropsy from renal disease or suppressed perspiration. The *higher* dilutions must be used where the secretion of urine is profuse, and the *lower* where it is scanty.

Oleum Ricinus Communis in Dysentery.—This remedy should not be lost sight of in the first stage of dysentery, when there is a frequent desire and urging, or the evacuations are in the form of small hard balls, and there is but little mucus or blood. It is best administered in three grains of the trituration, made of equal quantities of *Castor Oil* and *Sugar of Milk* finely powdered, given every three or four hours. It should also be remembered when other forms of diarrhœa, even chronic, prove obstinate and will not yield to other remedies.

Myrica Cerifera, its *Hepatic Symptoms*.—Jaundice is a secondary effect of this drug, which it develops by suspending the secretion. Its symptoms are drowsiness, with a heavy, frontal headache in the morning; the eyes a yellowish tinge; the urine becomes scanty, and the stools light in color and destitute of bile. The skin becomes yellow and there is a fullness in the stomach and bowels. The appetite fails, and there is great debility. These symptoms are accompanied with a dull pain in the region of the hepatic gland. *Myrica cerifera* undoubtedly causes true jaundice, and, in the treatment of this disease it should be administered in the lower attenuations. Numerous cases of jaundice have been effectively cured by this drug, thus proving its homœopathic relation to this disease.

Myrtus Communis, a *Left Lung Remedy*.—*Myrtus Communis* has a peculiar inclination for the *left lung*. There is no other remedy that is so prompt in removing those painful stitches in the *left* side of the chest, and running through the shoulder-blade, which are so prevalent in cases of tuberculosis. It is a prime remedy in hepatization of the *left* lobe of the lung. It is homœopathic to that dry, hollow cough, caused by a tickling in the upper anterior lobes of the *left* lung. The symptoms are *worse* in the morning, *less* at evening, and between the two periods there is a feeling of great lassitude. It also acts beneficially in that aching, throbbing, and stitching pain in the *left*, intraclavicular region, extending from thence to the left shoulder-blade, which is greatly aggravated by taking a deep inspiration, and is accompanied with a burning sensation in the *left* portion in the chest. It is further homœopathic to the stitching pain in the *left* portion of the chest, extending from the upper portion through to the *left* shoulder-blade, the symptoms being aggravated by yawning, breathing or coughing. *Myrtus Communis* has for its analogies *Phosphorus* and *Bryonia alba*, two of our best chest remedies.

Oleum Jecoris Aselli, its *Expectoration Symptoms*.—One of its primary symptoms is an expectoration of *greenish-yellow* phlegm, of a tough character, and having a *saltish* taste. It has also an expectoration of yellow mucus, and in the morning one of a tough thin mucus. Its

secondary symptoms are a *white* expectoration, of a thick character, accompanied with a pain in the side, and a hard cough. There is also a loose cough, with *yellowish* expectoration. Hæmorrhage from the lungs is also a prominent symptom. It is homœopathic to weakness of the chest, especially the *left* side. It is best administered in the *1x* dilution, shaken well, two drops, three times a day.

Lobelia Inflata, a *Chest Symptom*.—A prominent symptom pointing to this drug is a sensation as if a foreign body were at the upper end of the sternum, impeding inspiration. There is also a feeling of fulness and weight in the epigastrium.

The Cough of Sulphur.—Sulphur has for its symptom a dry cough, accompanied with violent shooting pains in the chest. It has also a dull pressing pain in the right side of the chest. There are aching sore spots in the chest, increased by inspiration. The expectoration of lumps of bluish mucus is an indication for *Sulphur*, as is also a cough with expectoration of *white* mucus.

The Respiration of Lobelia Inflata.—Remember that the respiration of *Lobelia inflata* is *jerking*. There is great oppression, anxiety, and a feeling of suffocation. *Fear of death* is a characteristic symptom of this drug. This drug has also a prickling, burning sensation in the air passages, accompanied with a hawking up of a copious amount of phlegm.

Ipecacuanha in Night Vomiting.—This remedy should be borne in mind in *vomiting at night*. *Ipecacuanha* has an affinity for affections having periodical paroxysms, especially those occurring at *night*.

Acidum Phosphoricum in Chronic Nasal Catarrh.—*Acidum phosphoricum 1x* is useful when there is a *dryness* of the nose and a *suppressed* discharge.

Lilium Tigrinum, Male Sexual Symptoms.—This drug rouses dormant sexual desire into activity, even after years of inactivity. Lascivious dreams, accompanied with seminal emissions towards the morning take place. These are followed by a feeling of great weakness and irritability. There is also a great difficulty in keeping one's mind fixed upon one object, and one often uses incorrect words to express things. It has the same action of arousing a dormant sexual desire in the case of females in great force, an annoying symptom being a voluptuous itching and sense of fulness of the part. *Lilium Tigrinum 30* is a prime remedy in cases where any of the above-mentioned symptoms are present. The proving of the drug shows that it has the power of causing actual prolapsus and anteversion of the uterus.

Myrica Cerifera in Night Sweats.—This remedy has amongst its symptoms: Cough, with *profuse* expectoration; cough, of a *tickling* character on lying down at night; a feverish and excited feeling, alternating with chills, accompanied with pains in the small of the back; night sweats. It is valuable in the night sweats of phthisis pulmonalis and in chronic bronchitis, having the characteristic symptoms. These symptoms are generally accompanied with great languor, a feeling of unfitness for duty, and depression of spirits. The remedy may be used in the *1x* or *2x* dilution, given in three minim doses every three or four hours.

Polyporus Officinalis in Phthisis Pulmonalis.—In this drug we have a very useful and effective remedy in dealing with some of the most

annoying symptoms of pulmonary consumption, and one that should be better known. The tincture is made from the fungus growing on the Larch tree (*Abies excelsa*). It is commonly known as "Larch Agaric." It is of great benefit in the hectic chills and fever of phthisis. The chill may alternate with fever several times during the day. The former may be short and light, and the latter last for a long time. Chilliness along the spine, accompanied with hot flushes of heat sometimes takes place, and the skin may be hot and dry, especially the palms of the hands. In the proving of this drug a slight chilliness steals up the back towards the nape of the neck, and is especially felt between the shoulders. This is followed by a feeling of general chilliness, lasting for some minutes. The prover also wakes at midnight, *drenched with perspiration*. This shows it to be a remedy of the first importance in the treatment of the night sweats of phthisis. Aching pains in the large joints of the body are very prominent. It should be given in either the 1x or 2x dilution or trituration three or four times daily in 3 minim or 2 grain doses.

Gelsemium Sempervirens in Eruptive Fevers.—This drug will be found useful in the treatment of eruptive fevers, should, at the time of the eruption, be present a *decided tendency to convulsions*. It should thus be thought of in scarlet fever, typhoid fever, measles, rubeola, and also in suppressed intermittent fever, as well as in remittent fever. Chilliness, more especially along the back, followed by heat, are prominent symptoms of *Gelsemium*, and it will be noticed that when reaction takes place in the cessation of the chill, the pulse will rise as many degrees above normal as it fell below it.—*May Hom. World*.

WHEN A PATIENT COMES.—When a patient comes to us with warts we give him small doses of *Thuja* or *Magnes. sulph.*, knowing that if he is faithful in taking the medicine that the warts will disappear in a reasonable time.

When a patient comes with non-malignant papilloma studding the eyelid, singly or in numbers, we give him *Staphysagria* in minute doses, knowing that the papilloma will certainly disappear if a few weeks' time be given it, without the use of either knife or cautery, to the patient's astonishment and our satisfaction.

When a woman comes to us with a tumor in the breast which has not positively developed into a cancer, we prescribe *Phytolacca*, or *Fluoride of calcium* in the minute dose, as the tumor is either doughy or stony hard, and have the satisfaction of seeing it gradually disappear, to the astonishment of the surgeon who said that it "could not be removed save by the surgeon's knife."

When we have a serious case of peritonitis and inflammatory exudates are being thrown out until the bowels are in danger of uniting into a solid mass, we give minute doses of *Chloride of potash* and save our patient with the same certainty that we would move the bowels with a cathartic medicine.

When a mother brings her child to us with enlarged tonsils, we do not immediately take our tonsillotome and cut them out, but we prescribe small doses of the phosphate or brown *Iodide of lime* and watch them reduce to normal under nature's own efforts.

When we are called to a case of quinsy, where there is threatened supuration, we do not lance them at once, but give small doses of the natural soda *Salicylate* and stop all pathological disturbance in a few hours' time, providing we have begun the administration of the remedy in time.

When a fond father brings his heir apparent to us with a cold that lasts from January to July, we do not load him up with sprays and atomizers, but give him a bottle of the third decimal tablets of *Kali sulph.* with the proper directions, and the next time we see Johnny his nose is as clean as anybody could wish.

When we are called to a patient as yellow as saffron, we administer *Chionanthus* in fractional doses with the certainty that the trouble will be over in a few days. If the jaundice is from gall stones we give liberal doses of pure olive oil and wrest the case out of the hands of the surgeon in a very short while, with almost as much certainty and much more satisfaction to the patient. When a patient comes to us with the limbs covered with hard knotted and twisted veins, the result of portal stasis, we administer *Carduus mariana* in fractional doses and see him improve until not a vein is in sight.—Dr. G. W. Harvey, Millville, Cal., in *California Eclectic Medical Journal*, February.

THE TREATMENT OF INFANTILE PARALYSIS.—Frauenthal's article in one of a symposium. Concerning the treatment he concludes: Treatment should begin immediately after paralysis appears, but should be mild in the beginning. The application of high frequency over the spinal column by its contracting action relieves the compression on the nerve cells in the cord by the extravasated blood and serum. Even though we fail to obtain apparent muscular reaction by the galvanic or faradic current, we can prevent muscular atrophy by these currents and by the sinusoidal and high frequency, and win a victory from what seems positive defeat. This he has proven in over fifty cases, who have had previous treatment from one to three years, in other institutions, without the ability to walk or an ability to use the arms. The electric current should be the weakest that will produce a muscular contraction, and should not be continued in weak muscles when contraction ceases. We should approximate the origin and insertion of muscles when applying electricity. Finally, he calls attention to a class of active and passive movements (that are guided by a nurse) done before a mirror, and having the child concentrate its mind on each physical effort. This class of exercises, in children over three years has yielded the most brilliant results. As a final summary of his personal estimation of the relative value of electricity, active muscle education and massage, in the treatment of infantile paralysis, it is his opinion that the rating of good accomplished would be fifty-five per cent. from electricity in its various forms, twenty-five per cent. from muscle education combined with mental concentration on the physical effort, and twenty per cent. from muscle stimulation by massage.—*Amer. Jr. Obs.*, Vol. 63, 736.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

"Water is the fluid in which soluble materials are usually dissolved, and at ordinary temperature it is a fluid, the molecules of which are in constant movement; the hotter the water the more active are the movements of its molecules; until, when at last it is converted into steam, the molecular movements become much more energetic. Perfectly pure water consists of molecules with the formula H_2O , and these molecules undergo practically no dissociation into their constituent *atoms*, and it is for this reason that pure water is not a conductor of electricity. If a substance like sugar is dissolved in the water, the solution still remains incapable of conducting an electrical current. The sugar molecules in solution are still sugar molecules; they do not undergo dissociation. But if a substance like salt is dissolved in the water, the solution is then capable of conducting electrical currents, and the same is true of most acids, bases, and salts. These substances do undergo dissociation, and the simpler materials into which they are broken up in the water are called *ions*. Thus, if sodium chloride is dissolved in water, a certain number of its molecules become dissociated into *sodium ions*, which are charged with positive electricity, and *chlorine ions*, which are charged with negative electricity. Similarly a solution of hydrochloric acid in water contains free *hydrogen ions* and free *chlorine ions*. Sulphuric acid is decomposed into *hydrogen ions* and *ions* of SO_4 . The term ion is thus not equivalent to atom, for an ion may be a group of atoms, like SO_4 , in the example just given.

Further, in the case of hydrochloric acid, the negative charge of the *chlorine ion* is equal to the positive charge of the *hydrogen ion*; but in the case of the sulphuric acid, the negative charge of the SO_4 ion is equal to the positive charge of two hydrogen ions. We can thus speak of monovalent, divalent, trivalent, etc., ions.

Roughly speaking, *the greater the dilution the more nearly complete is the dissociation*, and in a very dilute solution of such a substance as *sodium chloride* we may consider that the number of *ions* is double the number of molecules of the salt present. The *ions* liberated by the act of dissociation are, as we have seen, charged with electricity, and when an electrical current is led into such a solution it is conducted through the solution by the movements of the *ions*. Substances which exhibit the property of dissociation are known as *electrolytes*. The conception of electrolytes, which we owe to Arrhenius, is extremely important in view of the question of osmotic pressure; because the act of dissociation increases the number of particles moving in the solution and so increases the osmotic pressure, for in this relation the ion plays the same part as a molecule. The liquids of the body contain electrolytes in solu-

tion, and it is owing to this fact that they are able to conduct electrical currents.

Another physiological aspect of the subject is seen in the study of the action of mineral salts in solution on living organisms and parts of organisms. Many years ago Ringer showed that contractile tissues (heart, cilia, etc.), continue to manifest their activity in certain saline solutions. Indeed, as Howell puts it, the cause of such rhythmical action is the presence of these inorganic substances in the blood or lymph which usually bathes them. In the case of the heart, the sinus, or venous end of the heart, is peculiarly susceptible to the stimulus of the inorganic salts, and the rhythmical peristaltic waves so started travel thence over the rest of the heart muscle.—(*Halliburton Chemical Physiology.*)

Artificial Dynamisations.—Whilst the ignorant deny the presence of matter in our dilutions, the eye, armed with a microscope, can nevertheless perceive it, and follow its *atoms*, even to a high degree of division. Of this, Dr. Charles Mayerhoffer obtained very striking proofs. He has submitted several metals to the microscope, and examined them with lenses of various powers, and, after having ascertained the purity of the inert vehicle, sugar of milk, or alcohol, he traced them in degrees of almost incomprehensible division. Taking as a basis, the number and size of the atoms of a grain, after the trituration, he has confirmed the following phenomena:

<i>Platina</i> , divisible	More than a trillion times.
<i>Mercury</i> , divisible	More than a trillion times.
<i>Lead</i> , divisible	More than a billion times.
<i>Iron</i> , divisible	More than a billion times.
<i>Zinc</i> , divisible	More than a million times.
<i>Copper</i> , divisible	More than a million times.
<i>Tin</i> , divisible	More than a million times.
<i>Gold</i> , divisible	More than a million times.

A decigramme of *copper*, dissolved in nitric acid, and diluted with water tinged blue with ammonia, can be divided into 50,000,000,000 of visible parts.

A decigramme of *carmine* may be divided into 2,600,000,000 of parts, all equally visible.

A grain of *assafoetida* evaporates in 11,781,000 scented atoms.

A grain of *musk* diffuses an odor for twenty years, in a place where the air freely circulates, without apparently losing its weight, and evaporates in 300,200,000,000,000,000 particles, etc., etc.—(*Granier.*)

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MULTIPLE NEURITIS.

BY

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(Read before the West Philadelphia General Homœopathic Hospital and Dispensary Society, December 30, 1910.)

IN looking over the 1909-1910 report of the Hahnemann Hospital I find that in the Neurological Department multiple neuritis was met with in 7.4 per cent. of cases exclusive of mental diseases, and that this proportion rose to 13 per cent. when hysteria, neurasthenia and psychasthenia likewise were eliminated. As multiple neuritis is relatively so common it is important that the physician should possess greater knowledge of this disease than of other less frequently encountered organic nervous diseases.

As its name implies, multiple neuritis is a disease characterized by disseminated inflammation of nerves. However, when two or more nerves become inflamed as a result of traumatism the condition should not be confused with multiple neuritis, for the reason that this termination should be reserved for those cases of polyneuritis resulting from systemic intoxications and metabolic disturbances and not for ones due entirely to local causes.

ETIOLOGY.

The causes of multiple neuritis may be conveniently divided into those dependent upon the ingestion of toxic substances, upon the toxæmias of infectious diseases, and upon the elaboration of toxic substances consequent upon metabolic disturbances. Of the poisons derived from without alcohol and lead are the most frequent. Among other foreign toxic agents which may give rise to the disease are arsenic, mercury, copper, brass, phosphorus, silver and carbon disulphide. Either as a complication or as a sequella polyneuritis may be due to the toxæmias of many, if not all, of the known or presumptive germ diseases of which diphtheria is the most common example. Among the metabolic disturbances which may be complicated by multiple neuritis may be mentioned gout, diabetes, and the faulty physiologic readjustments of pregnancy and the puerperium.

Quite frequently patients are exposed to several of the possible causes of multiple neuritis so that it may be impossible to assign the condition to only one provocative agent. Thus the patient whose multiple neuritis appears during the course of an infection often is an alcoholic; so also alcoholism and plumbism frequently are found in association.

SYMPTOMATOLOGY.

With the onset of neuritis the patient is apt to complain of pain and tingling; though in those cases in which only the motor nerves seem to be affected these sensory symptoms may be negligible or absent. Unfortunately, in reading descriptions of multiple neuritis one gains the impression that pain is one of the most constant and characteristic symptoms. This conception is most misleading because pain often is absent in many of the neurites consequent upon intoxication with the metallic poisons and not uncommonly it is absent, too, in cases originating from febrile toxæmias. When pain is present it may vary in intensity from mere soreness to suffering so intolerable as to necessitate the use of morphine; though so extreme an amount of pain is unusual. Cutaneous hyperæsthesia of the affected parts usually is found in association with pain.

In case the inflammation is severe enough to occasion actual degeneration of the nerves pain and hyperæsthesia are replaced

by anæsthesia, and the patient complains of numbness. Even with the presence of pain, however, all forms of sensory perception may be much diminished, thus constituting what has been termed *anæsthesia dolorosa*. In fact, even though pain and hyperæsthesia are made the subjects of complaint examination commonly discloses lessened acuity of sensory perception.

Parenthetically, it is well to remember that multiple neuritis may be expressed almost exclusively either by motor or by sensory symptoms. Yet careful examination always shows motor participation in a so-called sensory neuritis and vice versa.

Objectively a number of signs can be found in addition to those dependent upon anæsthesia and hyperæsthesia. Among these the most important from the diagnostic point of view are diminution or actual loss of muscular force, the tendon reflexes and of presence of muscular atrophy, and tenderness of the affected nerve trunks. Concerning the first of these conditions, it is curious that the extensors are affected sooner and more severely than the flexors, and that the muscles of the distal extremity of the limbs tend first to become involved. Muscular atrophy appears early in the course of the disease and progresses hand in hand with the amount of muscular paralysis. Diminution or loss of reflexes is limited to those reflexes whose arcs are involved by neuritis, whether it is only the motor or only the sensory limb of these arcs which seems to be affected. Thus the knee jerks will be normal in a patient with polyneuritis limited to the upper extremities. Also the pupillary reflex to light will be lost in a case of advanced bilateral optic neuritis even though the motor oculi nerves are unaffected. On the other hand, the same sign occurs when the motor oculi nerves are the seat of neuritis and the optic nerves are normal. A feature that may be of the utmost importance in the differential diagnosis is the fact that the visceral reflexes are practically never impaired in multiple neuritis. Loss of muscular tonus naturally corresponds in degree with the amount of paralysis and atrophy.

Late in the course of severe polyneuritis contractures appear as the result of unequal involvement of the flexor and extensor muscles, and of tendinous retraction. Deformities also tend to occur by reason of the effect of gravity upon affected members. In this manner considerable distortion of the hands and feet will appear unless the physician exercises constant super-

vision of the artificial support of these parts. With patients confined to bed it is necessary, for instance, to resort to some kind of boot splint in order to prevent distortion of the feet.

Among trophic and vasomotor disturbances other than muscular atrophy, coldness of the skin, œdema and excessive or diminished local perspiration may be observed. The skin often appears glossy and the nails may become thickened and friable. For some unaccountable reason trophic ulcers are uncommon.

Of prognostic as well as of diagnostic value is the state of the electrical reactions of the paralyzed muscles. The changes from the normal responses to electric stimulation begin to appear at about the end of the first week, and the quality and intensity of the pathologic reactions depend upon the severity of the neuritis so that practically all forms of deviation from the normal can be elicited in various cases.

DISTRIBUTION.

As already mentioned, the effects of multiple neuritis are noticed mainly in the distal muscles of the extremities. The muscles of the trunk, though, are not immune, and even the cranial nerves may be affected. As the ingestion of certain toxic agents, particularly alcohol and lead, is apt to result in optic neuritis, this condition may be found in association with polyneuritis. Even the ocular muscles are not exempt, for quite commonly these are affected in diphtheritic multiple neuritis, and rarely the pupillary reflexes have been known to be involved.

NEUOTABES PERIPHERICA.

When multiple neuritis involves those deep sensory nerves which convey afferent impressions from the muscles and joints a symptom complex may result that often mimics closely tabes dorsalis. In such cases inco-ordination is a marked feature which gives rise to static and locomotor ataxia, and these symptoms may be associated with loss of the knee jerks, lightning pains, and even, in rare cases, with ocular and optic nerve symptoms. This neuritic pseudo-tabes is found occasionally in cases of multiple neuritis due to alcohol, diphtheria, and arsenic.

ALCOHOLIC POLYNEURITIS.

As different toxic agents tend clinically to produce different forms of manifestations it is well to consider separately several

of the more common of these. By far the most frequent cause of multiple neuritis is prolonged drinking, perhaps in small quantities, of alcoholic beverages. It is to be noted that it is not so much the consumption of large amounts of alcohol at intervals that causes the disease as it is continued daily drinking in moderation. Even though the majority of cases of alcoholic polyneuritis, in this country at least, occur in males, it is thought that women are particularly susceptible to this condition.

The onset of alcoholic polyneuritis is more or less gradual, and may or may not be accompanied by severe pain. The main distinguishing feature is the early involvement of the extensor muscles of the feet, followed, later, by paralysis of the extensors of the hands, and then of the other muscles of the extremities. The extensors of the feet and hands are the most severely affected, and, if the patient is capable of walking, his gait is characterized by the height to which he lifts his legs—steppage gait—in order to prevent the toes of the dropped feet from scraping along the floor. Retro-bulbar optic neuritis and Korsakoff's psychosis are possible complications. The latter condition is supposed to be due to associated toxic encephalitis and is manifested by amnesia, disorientation, hallucinations, and delusions. The prognosis of alcoholic multiple neuritis is rather favorable. If the patient can be induced to discontinue his indulgence in alcoholic drinks when the first premonitory symptoms develop it is not uncommon for recovery to occur in the course of a few weeks, and in the frequently encountered mild cases it is usually unnecessary for the patient to be confined to bed. The severe cases are bedridden for weeks or months and the recovery may not be complete. Relapses are prone to occur if the patient returns to his alcoholic habit.

ARSENICAL POLYNEURITIS.

The source of arsenical poisoning may be obvious, as in those whose occupations necessitate exposure to the salts of this metal, or it may be determined only after the most thorough investigation. Thus, an epidemic of arsenical multiple neuritis occurring in 1900 in and around Manchester, England, was found to be due to the presence of considerable amounts of arsenic in the beer of that district. Extensive chemical analyses showed that arsenic was present in the glucose and invert sugar used in the brewing of the beer, and that the contamination of these substances was the result of

the manufacturers using the cheaper sulphuric acid obtained from pyrites, which always contains small amounts of arsenic, instead of that made from brimstone. The acid is employed for converting cane sugar into invert sugar and starches into glucose. In this epidemic over 4,000 persons were poisoned and at least 300 died.

Among other possible sources of arsenical poisoning is the medicinal use of Fowler's solution, and even living in rooms papered with arsenical wall paper.

The symptoms of arsenical neuritis are paræsthesia, pain, paralysis and atrophy affecting principally the distal portion of the extremities; the upper extremities being involved more frequently than in alcoholic neuritis. Associated with these symptoms are hyperhydrosis, alopecia, and cutaneous pigmentation similar to that of Addison's disease. A feature of arsenical neuritis is the prominence of pain. As a rule the prognosis is favorable except in the hyperacute cases. Exceptionally, permanent paralysis may ensue or recovery may be prolonged for several years.

LEAD MULTIPLE NEURITIS.

Prominent among those exposed to the noxious effects of the absorption of lead are painters, white lead workers, type setters and type founders, plumbers, potters, etc. Among other measures recommended for the treatment of plumbism and chronic mercurial poisoning is the administration of potassium iodide in material doses. Unless carefully employed, however, this agent may increase the severity of the symptoms of metallic intoxication by reason of the fact that it dissolves and sets free in the patient's system quantities of lead, or of mercury, that before had been almost innocuous.

Lead neuritis may or may not be preceded, or accompanied, by symptoms of lead poisoning other than those due to neuritis. As a rule, however, such symptoms as colic, constipation, arthralgia, coloration of the gums and anæmia, coexist with the manifestation of neuritis.

The characteristics of lead neuritis are the absence of neuritic pains and the early, and perhaps isolated, involvement of the extensors of the hands and fingers. The cranial nerves may become affected, and optic neuritis with consequent partial or complete and permanent blindness is a sad and not rare complication. What is known as lead encephalopathy, pathologically a

meningo-encephalitis, may be associated with saturnine neuritis and give rise to such conditions as hemiplegia, delirium, convulsions, coma, etc.

Usually the prognosis is guardedly favorable except in severe cases with extensive paralysis, lead encephalopathy, or advanced nephritis. When the optic nerves have been involved complete restoration of vision is practically hopeless. It is of the greatest importance that one who has recovered from lead neuritis should not again expose himself to lead absorption, as the susceptibility to the poison is increased by one attack and subsequent ones are apt to be more serious.

DIPHThERITIC POLYNEURITIS. POST DIPHThERITIC PARALYSIS.

Quite commonly multiple neuritis occurs from one to several weeks after an attack of diphtheria. The frequency of this sequella does not seem to be influenced by the use of antitoxin.

The structures most frequently affected by diphtheritic multiple neuritis are the soft palate, and the muscles of deglutition and of the pharynx, paralysis of which gives rise to regurgitation of food into the posterior nares and into the larynx. Next in frequency the muscles of accommodation are affected. Rarely the neuritis may occur more diffusely, resulting in paraplegia and other paralytic phenomena. Pain and other sensory disturbances are insignificant or absent.

Providing that the cardiac and respiratory functions are not affected the prognosis is good; the paralytic conditions disappearing in the course of several months.

DIAGNOSIS.

Ordinarily the diagnosis of multiple neuritis is readily made. More difficult, however, is the detection of the causative irritant.

A typical case may be outlined as follows: After several days or weeks of formication, numbness and pain in the extremities the patient notices that his strength is failing. Usually he comes under treatment at this time and, providing that the cause can be discovered and removed at once, and that intelligent treatment is instituted, the progress of the disease ordinarily is arrested before more grave symptoms appear. The ordinary case, then, does not progress so far as to incapacitate the patient. At this stage, or during a more advanced one,

examination of the parts affected by the disease shows impairment of cutaneous sensibility, diminution or loss of tendon reflexes, tenderness of the nerve trunks, reduction of muscular force, beginning muscular atrophy, and alteration of the normal responses to electrical stimulation.

DIFFERENTIAL DIAGNOSIS.

The ataxic form of polyneuritis differs from tabes dorsalis in that nerve tenderness, disturbance of electrical reactions, and more or less impairment of muscular force are found, while of negative value is the lack of involvement of the visceral functions and the absence, save in rare cases, of the Argyll-Robertson pupil.

The differentiation of multiple neuritis from progressive muscular atrophy occasionally may be most difficult. Particularly is this the case when the causative agent is lead with the consequence that sensory symptoms may be absent. Ordinarily, however, there is sufficient nerve tenderness and other sensory symptoms to prevent mistakes being made.

Although hysteria can mimic polyneuritis it will be found that the tendon reflexes remain present, except in exceedingly rare cases, true atrophy does not appear, and the electrical reactions, though perhaps disturbed, never take on the characteristics of those due to organic diseases.

PROGNOSIS.

In addition to what has been mentioned concerning the prognosis in general a few words are necessary relative to the prognostic value of variations in the electric reactions. The results of electric examination afford comparatively accurate means of arriving at a conclusion respecting the possible outcome of individual muscular paralysis. Stated briefly, the more nearly complete a reaction of degeneration the longer recovery will be deferred and the less apt is it to occur. With severe cases in which the reaction of degeneration persists for many months, together with increasing loss of irritability to galvanism, the prospect even of moderate return of function is remote.

TREATMENT.

The first two essential therapeutic measures are removal of

the cause and rest of the affected parts. In fact, rest of partially paralyzed muscles is just as important early in the course of neuritis as immobilization is in the treatment of fractured bones. Usually pain is a conservative symptom as well as one of Nature's warnings. It protects in that it prevents undue use of a painful part. However, this is not sufficient; it is better to enforce absolute rest in cases of neuritis of moderate or of great severity.

If the amount of paralysis is sufficient to permit the development of deformities the necessity for support of the affected parts is obvious.

After the acute stage of the disease has passed electrotherapy, massage, passive movements and cautious voluntary use of the muscles are indicated. These measures would be positively harmful if employed during the onset and height of the disease. Still galvanism and high frequency currents are valuable as sedative agents providing that they are cautiously used.

The medicinal treatment varies with the cause, but promotion of elimination is indicated in all varieties of polyneuritis. To this end saline laxatives are useful, and material doses of potassium iodide assist in eliminating the metallic poisons, but, as mentioned before, this agent must be administered with care in order to prevent resorption of the liberated metal with consequent aggravation of the symptoms of intoxication.

The salicylates are valuable in those cases in which no cause other than exposure can be discovered and which correspond to refrigeration facial paralysis and "rheumatic sore throat." Although many authorities deny that polyneuritis can be caused by syphilis, yet cases not infrequently are encountered in which former syphilitic infection is the only possible cause that can be found and in which the administration of mercury is followed so rapidly by improvement that no other conclusion seems warranted than that the neuritis was syphilitic in origin. When polyneuritis occurs during the course of malaria quinine may be useful. Following the acute stage strychnine, in doses as large as gr. 1-30, is valuable in most cases of neuritis. Among other remedies arsenicum, argent. nit., zinc. phosphide, zinc. pic., and plumbum met. should not be forgotten.

Tenotomy may be indicated when persistent mechanical treatment fails to overcome disabling contractures arising from permanent muscular paralysis.

TREATMENT OF TUMOR OF THE BLADDER BY ELECTRICAL DEHYDRATION.

BY

LEON T. ASHCRAFT, A. M., M. D.

(Read before the West Jersey Homœopathic Medical Society at Pitman Grove,
N. J., August 16th, 1911.)

IN a paper previously published,* I submitted a report of a number of cases of bladder tumor treated by surgical measures.

The outlook for bladder tumor is decidedly gloomy, particularly in the cancerous forms. Even in the benign type, the exhausting hemorrhages, to which is added cystitis and renal sepsis, eventually cause death. I believe that the only hope for those who have benign tumor of the bladder is to recognize it early and then thoroughly remove it; particularly is this so of the villous type, since it is not so liable to degenerate into malignancy, and if not thoroughly removed will tend to recur at different parts of the bladder and then undergo malignant degeneration.

F. S. Watson† gives a complete resume of six hundred and eighty-three cases, which I have quoted in my former article.

Fortunately bladder tumors are infrequently seen. It has been my misfortune, however, to see quite a few during the years that I have practiced cystoscopy and the results from treatment have not always been pleasant.

Beer and E. L. Keyes, Jr.,‡ report a few cases treated by the high frequency current. Single cases are referred to by Wm. L. Clark,§ Vander Veer and Lewi. Buerger and Wolbarst have also cited cases.

Their apparently good results led me to investigate it, although the technic which I follow differs from theirs.

It is as follows: The patient is prepared as for cystoscopic examination. An examining cystoscope is introduced and the

*HAHNEMANNIAN MONTHLY, March, 1910.

†Watson & Cunningham, "Genito Urinary Diseases."

‡Beer, *Journal of American Medical Association*, May 28th, 1910. Beer, *Annals of Surgery*, August, 1911. Keyes, *American Journal of Surgery*, July, 1910.

§Wm. L. Clark, *New York Medical Journal*, June 10th, 1911. Vander Veer and Lewi, *American Journal of Dermatology and Genito Urinary Diseases*, August, 1911. Buerger, *New York Medical Journal*, October 29th, 1910.

tumor located. Then a Nitze catheterizing cystoscope having in its catheter groove a gutta percha insulated wire is introduced into the bladder. I project this wire to within one-eighth of an inch of the tumor. Its end is then connected with the single pole high tension apparatus especially made for this work and the current turned on.

An approximation of the amount of current necessary to produce the desired effect may be previously ascertained by immersing one's finger and the wire under water and bringing the wire in contact with the flesh. A resultant white blister will show the required degree of intensity.

While operating, one may see sparks and bubbles in the bladder, but soon the view will be obscured by the disintegration of the tumor. I content myself with three or four sparkings at one sitting. These may be directed at one point for three to five seconds or even to sixty seconds, after which the current is turned off and another point selected. No absolute rules, however, can be laid down governing either the number of points selected for attack or the length of time consumed at each sitting, since each must be determined by the character and location of the tumor, cystoscopy previous to treatment, being the only correct guide.

The destruction of the tumor by dehydration, extracting its watery elements, is superior to the method of fulguration, the latter acting as a cautery, producing an eschar on the bladder and thus preventing penetration into the base of the tumor.

Very little discomfort is felt following these treatments. The patients shortly after returning to their homes. Occasionally, there is urinary frequency associated with dysuria. In some instances it is necessary to irrigate the bladder with boric acid solution following the treatment.

The next sitting should take place between four and ten days, freedom from irritation being the guide. Preliminary cystoscopy, as before mentioned, will adjudge the amount of progress.

To be sure, this method is yet in its infancy, but reported results, together with my personal experience are very satisfactory. It is a decided advantage over radical surgery inasmuch

as it removes these growths painlessly. It should be of decided value in inoperable tumors of the bladder.

Naturally, I have but few cases to report.

Case 1. Mrs. S. Age, 23. Patient of Dr. Woodward. Was referred February 22nd, 1911, with a history of hematuria and cystitis following child birth. This had persisted for twelve weeks. Patient presented a slight degree of anæmia. Urination, however, was hourly and always associated with bleeding. She was likewise compelled to urinate several times during the night.

Cystoscopy revealed a pedunculated papilloma about the size of a twenty-five cent piece situated slightly beyond the neck of the bladder. But few villi were seen on its surface. The rest of the bladder was free from disease. The pedicle was thick and broad. I determined to try electrical dehydration.

March 2nd, 1911. First electrical treatment. I projected the wire directly to the base of the tumor. I made several sparkings at its base, each one lasting from five to ten seconds, after which I irrigated with boric acid solution. After this treatment she reported passing clots, with very little, if any diminution in the frequency or character of urination.

March 9th, 1911. Second electrical treatment. Cystoscopy showed a decrease in the size of the pedicle and some necrotic areas. This time I prolonged the sparkings twenty seconds, attacking the growth in its body and pedicle at several points, subsequently washing with boric acid solution. Following this sitting the same symptoms pertained as followed the first treatment.

March 16th, 1911. Third electrical treatment. Cystoscopy showed several necrotic areas and shrinkage in the size of the tumor. The growth was attacked in several places, each treatment lasting about ten seconds.

March 20th, 1911. Fourth electrical treatment. Inasmuch as patient reported a decrease of urinary distress, I decided to treat at this time, an interval of four days from the last treatment. Cystoscopy showed marked diminution in the size of the tumor. Electrical treatment was given at several points, each sparking occupying five seconds.

March 23rd, 1911. Fifth electrical treatment. Urinary symptoms improving. I gave treatment similar to the previous one.

From this time on the symptoms rapidly disappeared. I omitted treatment for two weeks, during which time I cystoscoped twice and occasionally irrigated the bladder with boric acid solution. Cystoscopy at each sitting showed diminution in the size of the growth, the few remaining areas, however, were lightly sparked on April 6th, 1911.

I gave another treatment four days subsequently. The symptoms by this time had entirely disappeared. Cystoscopy showed nothing abnormal.

I advised her to call every two weeks for examination. My last cystoscopy was August 11th. She is perfectly well, and I can see no evidences whatsoever of any pathological condition of the bladder.

Case 2. J. Consulted me November 18th, 1910. History: First noticed hematuria in June, 1910. One month ago had retention of urine associated with great agony. Using the patient's words, "Something seemed to burst. Clots were passed resembling liver, soft and about two inches long." The retention was relieved by his physician and the bladder irrigated daily. Within the last week hematuria had returned. Anæmia was noticeable.

Cystoscopy showed moderate enlargement of the prostate, also a tumor about the size of a dollar situated in an unusual locality, on the superior lateral wall about two inches beyond the left ureter. The ureter was free. The tumor was lobulated, smooth on its surface and firmly attached to the bladder wall by a thick, broad stem. This was distinctly an inoperable carcinoma.

November 25th, 1910. First electrical treatment was given, attacking the head of the growth, prolonging sparking to twenty seconds.

He was referred to the hospital, no treatment being given for about two weeks, during which time he had a mild attack of hematuria.

December 9th, 1911. Second electrical treatment was given. But very little change was noticed.

The patient decided to omit treatment.

I subsequently cystoscoped on two occasions. The first about two months after the last treatment, and again one month later. No change whatsoever was noticed in the tumor.

I received a report the other day saying that he has decided

to resume treatment. He has had several attacks of hematuria and the cystitis is annoying.

I hope soon to report on this and several other cases that I have under observation.

RHEUMATISM IN CHILDHOOD.

C. SIGMUND RAUE, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of Berks and Schuylkill County, in Reading, Penna., July 19th, 1911.)

IN order to illustrate in a practical manner the more characteristic manifestations of rheumatism as it occurs in childhood, I have selected a number of cases from my hospital service whose histories I shall recount to you. This series represents four cases, each showing characteristic symptoms more or less distinct and different and yet all are but phases of the same disease.

The first case is a child six years old, that has had a temperature of low range—100.6 in the evening—for a period of several days, and complains of being tired and of having vague pains in the legs. These pains are usually worse at night, and are commonly called growing pains. The child has had similar attacks on previous occasions. Sometimes there has been sore throat associated with the condition.

Examination of the heart and lungs is negative. The urine is diminished in quantity, acid in reaction, high specific gravity, but otherwise normal. At times the mother has noticed a brick-dust sediment in the child's urine. The tongue is coated, the breath offensive and the bowels constipated.

The second case presents more pronounced symptoms. In this little girl's past history similar attacks to the one just described have been noted. She also had an attack of quinsy about a year ago, after which she was confined to her bed for a week on account of an inflamed ankle. One month ago she had an attack of torticollis, or as the mother describes it, a stiff neck which persisted for a week. Her present condition developed five days before I saw her, when she began to complain of severe pains in the elbow and wrist of the right arm, and pains in the left shoulder joint. Her temperature at the present time is 101°F. Pulse 100. The heart and lungs are negative.

Examination of the painful joints shows a slight amount of

swelling, without, however, any redness, and the joints and periarticular structures particularly are quite tender when palpated. Passive motion is also painful and voluntary motion quite restricted.

The next case is a girl 11 years old. Two weeks before the present illness she exhibited symptoms of a purely nervous nature. She gave no history of previous rheumatism, (into which we especially inquired). Her previous symptoms were irregular, purposeless, incoordinated movement which took place in this child's face and extremities. Her speech was also affected by the loss of proper control over the muscles of articulation. We have here, therefore, a case of chorea, which disease, strange as it may seem, is a neurosis resulting from the action upon the motor centres in the brain of the same poison which has produced the fever and joint manifestations in the preceding case.

There is, however, a new development in this case which is strong corroborative evidence of the identity of the infection in these cases. A few days ago she became suddenly acutely ill, her temperature rising to 102°F., and there appeared upon her body an erythematous rash, manifesting itself in strangely regular, annular figures, a condition described as erythema marginatum. At the same time the heart, which had been repeatedly examined and which previously was normal, revealed the development of an endocarditis, which has progressed rapidly. In the beginning the first sound of the heart simply appeared muffled and prolonged, but now there is a distinct systolic blowing murmur heard over the apex and the area of deep cardiac dullness is distinctly increased beyond the normal limits. The chorea, therefore, associated with erythema, fever, and endocarditis unmistakably stamp this case as one of rheumatic infection.

The last case is a boy 10 years old, who has had previous attacks of rheumatism. He has an enlarged heart, with an old mitral regurgitation and has recently had a recurrence of his rheumatic infection with the development of acute pericarditis.

He came into the dispensary complaining of vague abdominal pains referred to the right hypochondriac region. The abdomen was found negative. He had at that time a temperature of 101°F., and his pericarditis was discovered during the course of a routine examination of the chest. This is an important point to bear in mind for it quite frequently happens

that a correct diagnosis can only be made by examining the patient from head to foot, so to speak, there being no pathognomonic symptoms present to point the way directly to the organ involved.

Pericarditis is usually one of the late manifestations of rheumatism and most frequently develops in a heart that has already been affected by previous attacks of endocarditis. Naturally it brings an additional impediment to an already embarrassed heart, most seriously interfering with the nutrition of the heart muscles and hastening the breakdown to which such a heart is doomed.

Cardiac disease in children offers an unfavorable prognosis owing to the tendency to recurrence, which is characteristic of rheumatic endocarditis, and also owing to the great demands made upon the circulatory apparatus at this period of life.

These four cases, illustrate very nicely the diversity of the clinical picture presented by rheumatism in childhood, and also shows you the progressive character which the disease frequently assumes. Rheumatism in childhood differs distinctly from rheumatism in adults, and I shall now enter upon a discussion of these points:

Rheumatism is relatively common in childhood, although in infancy it is extremely rare. I have seen a few cases in infancy, but I feel that the diagnosis of rheumatism at this age should be made with reserve. Scurvy and syphilitic epiphysitis are not infrequently mistaken for rheumatism, and arthritis in infancy is more often due to the gonococcus and to sepsis than to rheumatism.

In childhood the arthritic manifestations of rheumatism are less marked than in adults, while endocarditis, chorea and cutaneous manifestations are much more common than in adults. Often, indeed, endocarditis exists as the only evidence of rheumatism, other manifestations of the disease, however, eventually showing themselves in the majority of such cases. The same holds good in the case of chorea, and while both endocarditis and chorea are preceded in the majority of cases by arthritic manifestations, nevertheless they occasionally precede their development.

Rheumatism in childhood shows a strong tendency to relapse, and its greatest danger is the occurrence of endocarditis or the exacerbations of a pre-existing endocarditis with each relapse. It is indeed astonishing to see how much damage can

occur to the heart as the result of an apparently trivial attack of rheumatism. Those of us who come in contact with a large clinical material among sick children and who see the many emaciated, permanently blighted cardiac cases for whom so little can be done, soon realize that rheumatism is indeed a problem most seriously to be considered.

The etiology is still unknown. While there appears to be little doubt as to its infectious nature, still the virus has not been satisfactorily demonstrated. The organisms isolated from rheumatic cases are chiefly the pus-forming varieties, but as such organisms frequently complicate rheumatism, they cannot be considered as the primary cause of the disease. Poynton and Paine have demonstrated a diplococcus in numerous cases, probably identical with the organism described by Triboulet in 1897, and by Wassermann in 1897. Singer regards rheumatism as a septicopyemia, although other investigators claim that the organisms found in the joints after death, invade the joints during the death agony as organisms can rarely be found there during life. They regard the arthritis as an evidence of toxemia.

I believe that every effort should be made in the direction of prophylaxis. The removal of diseased tonsils and adenoids is important. I also believe that exposure to a case of rheumatism should be avoided just as in the case of tuberculosis. Being ignorant of the etiology of the disease we should take no chances with the possibility of contagion.

A child with a rheumatic family history or one that has had previous attacks should be under constant surveillance. On the occurrence of any acute disturbance its temperature should be taken, and if there is fever the child should be put to bed and the heart examined daily. Between the attacks constitutional treatment and supervision of the diet and clothing must be carried out. A change of climate is an important factor that is to be recommended to such as are financially and otherwise able to consider it.

CHANGE OF ADDRESS.

THE Editorial and Business offices of the *HAHNEMANNIAN MONTHLY* have been removed to 1631 Arch Street, Philadelphia.

THE TREATMENT OF INFLAMMATION OF THE FEMALE GENITALIA.

BY

E. F. SAPPINGTON, M. D., WASHINGTON, D. C.

THE recent literature and studies of the pelvic inflammations in women have marked a new era of progress in the treatment of these lesions. That we may be cognizant of this progress and may have a part, although it may be an humble one, in its splendid achievements is my apology for the presentation of this paper.

In this paper the lesions resulting from an invasion of the Gonococci, Staphylococci and Streptococci will be discussed only. It may be profitable just here to consider the action of these organisms when they invade a healthy mucous membrane. The Gonococci produce in a few days a suppurative purulent catarrh. Where the mucous membrane is of the squamous variety the process is very mild and superficial. In the columnar celled type, the destruction is much greater. There this organism not only invades the cell structure, but passes between the cells to the submucosa. They may at times work their pernicious mischief even into the submucosa. In this event the superficial tissues usually slough and an ulcer results. The end results may be *complete repair* of the structures or chronic ulceration.

Of the action of the Staphylococci and Streptococci we know little. The greater number of suppurations are caused by the staphylococci alone. The action of these organisms is mostly local. They may, however, invade the blood stream, but rarely cause general sepsis. They are markedly leukotactic, the inflammatory area usually being surrounded by a limiting zone of leukocytes. The streptococci have a marked affinity for the lymph channels and spaces in which they travel widely and rapidly. They are hindered in their onward path of destruction by the leukocytes, their leukotactic power being very feeble. This brief resumé of the action of these organisms will be of *value* later in our study of the treatment of pelvic abscesses.

Acute vulvitis is not of frequent occurrence, except in women of advanced age. It is usually a staphylococcic infection and hence localized as a furuncle.

If seen early the lesion should be touched with pure carbolic and then painted with iodine. This may suffice. If supuration takes place it should be incised, evacuated, touched with pure carbolic and painted with iodine. The labia should then be separated and gently and thoroughly sponged with bichloride of mercury 1-6000. This solution should then be applied by means of narrow strips of gauze held in place by a snugly fitting "T" binder.

If the mercury solution irritates "the parts," a saturated solution of acetate of Aluminum should be applied. Calx sulphurata and urotropin are of value internally.

Infants frequently acquire gonorrheal vulvo vaginitis. In adults this condition does not so frequently obtain. The adult vagina being lined with squamous epithelium is not so very susceptible to these bacteria.

The vaginitis that is frequently associated with the acute infectious diseases is best treated by a one per cent. carbolic solution, given as a daily douche. The first essential in the treatment of acute vaginitis is rest in bed. Daily tepid sitz baths relieve the intense itching and burning.

Bichloride douches temperature of 90 F. and 1-3000 strength given four times daily are most efficacious. If this should irritate, one half per cent. ichthyol or 1-1000 thymol may be substituted. As the inflammation subsides the douches may be given hot 100 or 110 F. Later a vaginal bath of one per cent. silver nitrate solution given with the aid of a Ferguson speculum is both stimulating and healing. Following this the vagina should always be gently packed with sterile gauze. This pack should be removed at the end of twenty-four hours and a tepid douche of bi-carbonate of soda, drachms two to the quart should be given. It is of the greatest importance to have the bowels thoroughly evacuated daily.

The treatment of the acute inflammations of the cervix and endometrium will be very unsatisfactory if our patient does not remain in bed. The diet should be light, but nutritious and the kind that leaves little residue in the bowels. The bowels should be emptied daily by saline enemas. If there is much pain cold to the abdomen will give relief. The rubber coil is very acceptable. If there is much discharge, the vagina should be cleansed by cool bichloride douches under low pressure. If there is any elevation of the temperature we may, and should resort to intra uterine irrigation providing the

adnexa are not involved. The technique of this little operation is very important. The cervix should be exposed by means of a good light and a Simms speculum. Then gently grasped with a tenaculum forcep and held firmly while a two way catheter is passed into the uterus. The solution used should be of a temperature of 110 F. and made to flow slowly under very low pressure. The best antiseptics for intra uterine irrigation are yeast and Lysol. Of the former one cake to the quart, of the latter, one drachm to the quart are proper solutions.

Proctoclysis as advocated by Murphy of Chicago, is of great value in preventing peritonitis. In a recent case of staphylococcic infection of the uterus, staphylococcic vaccine exhibited to the point of tolerance was very satisfactory, the patient making an uneventful recovery. The dose was from two to four millions at intervals of a few days. The frequently repeated small dose has seemed to be much more satisfactory than the single large one.

In subacute and chronic inflammations of the uterine mucosa I believe all intra uterine treatment useless if the peritoneum is involved. The ulcerations of the cervix are usually controlled by the application of carbolic and iodine or silver nitrate and iodine. When these fail the ulcerations should be excised.

I believe the chronic inflammations of the endometrium are best treated by measures directed towards the general health of the patient. Measures that will improve the tone of the myometrium, increase the uterine circulation and cleanse the discharges from the vagina are in the vast majority of cases successful. Hot baths, hot douches and carbonated salt baths are very beneficial.

Bandler recommends packing the vagina with gauze saturated with glycerine, followed by cool douches.

A few days may suffice for the involvement of the tubes, ovaries and peritoneum after the uterus has been invaded. Adhesions may form rapidly at both ends of the tubes and a pyosalpinx result. The tubes may drain large quantities of pus into the uterus without involving the peritoneum. The peritoneum not being an epithelial structure is very resistant to bacterial invasion. However, this structure is very sensitive to irritation and because of this the patients suffering with acute inflammations of the adnexa should have absolute rest in

bed for at least one week after the temperature has become normal. The bowels should be cleansed by saline laxatives. Cold compresses should be applied to the abdomen. The associated inflammations in the other pelvic organs should receive careful attention.

Boldt says, as quoted by Bandler, "In acute gonorrheal infections of the adnexa with or without invasion of the pelvic peritoneum, rest, the application of the ice coil or ice bags, a narcotic frequently in the form of suppositories, for the purpose of lessening peristalsis and the avoidance of subsequent local examination should be insisted on until the acute symptoms have subsided, when one may begin with warm vaginal douches containing a mild antiseptic."

The cold applications should be continued until the temperature is normal and the patient free from pain. If at any time the tubes become distended with pus and sink to the floor of the pelvis, further delay with conservative treatment should not be practiced. The patient should be anesthetized and the cul-de-sac of Douglas widely opened. The tubes should then be incised and evacuated.

I want to make an humble plea not only for the more conservative treatment of the above condition, but for the mixed infections of the tubes and ovaries.

The mixed infections of these tissues is always a serious menace to the patient's well being. But by far the most serious menace which confronts these unfortunate patients is the too early and in most cases unnecessary radical operations which deprive them of tissues which are so vital in the preservation of good health. In a recent paper by T. L. Macdonald he said, "The onset of the acute illness and the time of operation should be separated by the longest period possible consistent with safety, this to be determined by the progress of the affection. In many instances, the patient develops a considerable degree of immunity, and even absolute sterilization of the tubes. This is the best time to operate. It is scarcely necessary to state that if, while waiting for this the patient ceases to improve or becomes worse, operation must be considered. The acute illness, the low vitality due to the bacterial poisons, as indicated by the washed out appearance, show that the reserve power is sorely reduced, and to contribute further to this by the depressing effects of the anæsthetic and the shock of the operation would be unwise, indeed. Added to

this are the increased technical difficulties during the height of the attack, because of the friability and undue vascularity of the surrounding structures which are so readily torn when ligated or sutured, making a dry pelvic toilet difficult, and therefore necessitating drainage infrequent and undesirable as it is." Simpson reported a series of 456 cases. The temperature of seventy-seven per cent. of the acute cases became normal in from one to ten days of rest in bed.

Carmichael says: "The conservative surgery of the Fallopian tubes is as yet in its infancy, but in the future adherent tubes and ectopic tubal pregnancy should not be considered indications for Salpingectomy."

I believe it is far better surgery and more in keeping with the progress of the age to give these unfortunate patients a chance by careful, watchful conservative treatment. If operative interference eventually becomes necessary they can withstand the shock of an abdominal section far better than if they had been operated in the midst of an acute virulent infection. This delay gives nature a chance to marshal her forces in effective battle array against the invading hosts and in three-fourths of the cases she will be successful. Not only will a life have been saved, but organs and tissues so vital to womanhood will have been spared further mutilation and possibly extirpation.

I would not be understood as recommending a delay of operative interference if the acute symptoms do not subside, nor should operation be delayed till the peritoneum is badly involved. A careful study of the patient's symptoms from day to day will give us ample warning if nature is failing in her struggle with death. Amberger, after making a careful and exhaustive study of the operative treatment of pyosalpinx, advises delay unless the symptoms become so severe as to threaten the life of the patients. The interval operation is practically without danger.

There is always an associated oophoritis and pelvic cellulitis, with salpingitis. The oophoritis will, in many cases, have subsided if there is a delay for the interval operation or it will have so far abated that there may be a resection of the ovary instead of its extirpation. To quote Scott Carmichael: "Certain conditions which clinically were formerly believed to be pathologic are no longer accepted as indications for the removal of the ovaries. A small amount of ovarian tissue has

the power of exerting its influence on the general economy, so that the small cystic ovary, the cirrhotic ovary or even the ovary imbedded in adhesions need not be condemned, to extirpation."

The interval operation will not only give the nearby organs and tissues time to repair the damage resulting from the infection so that their life will be spared by the careful surgeon, but the pus tube will sterilize itself. In a recent case operated from the wards of the hospital a careful examination of the pus did not reveal the presence of any bacteria. In this patient the pyosalpinx was as large as an orange. The subsequent progress of the patient proved the wisdom of the interval operation.

The infection in the vast majority of cases is securely walled off by a plastic exudate. This may be done in two ways. The exudate by choking the lymph channels, prevents the spread of the infection, or by forming anti-bodies may destroy the bacteria and render their toxines innocuous.

Chronic inflammation of the tubes and ovaries is always the result of some residue from the acute inflammations. If rest and general constitutional treatment do not relieve the pain, some operative procedure is necessary. The breaking up of adhesions and putting sterile olive oil into the abdomen may suffice. If there has been much tissue change in all probability one of the radical operations will be necessary. Cameron has devised an operation in which he anchors the ovary to the anterior surface of the broad ligament. This procedure has been very successful where the ovary has been buried in adhesions.

The chief aim and object of the physician will ever be to cure his patients. The successful gynecologist of the future then will be he who cures the vast majority of his patients by conservative treatment. He will save them the suffering, the invalidism occasioned by a premature menopause and the peoples of the future will praise his name and work.

TUBERCULOSIS: ITS CURABILITY AND MODERN METHODS OF TREATMENT.

BY

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(Read before the International Homœopathic Congress held in London, July, 1911.)

HIPPOCRATES, the most celebrated physician of antiquity, twenty-five centuries ago, wrote that tuberculosis was a curable affection, provided that it was treated in a sufficiently early stage. Many of the ancient authors, such as Celsus, Pliny and Galen, expressed similar opinions. According to Bouchard, "this disease, the scourge of humanity, is curable in the majority of cases." According to Jaccoud, "pulmonary consumption is curable at all stages." According to Debove, "there is probably no doctor who cannot point to cases of consumption cured." Tuberculosis is extremely common, and it may be admitted with statistics obtained from autopsies, that fifty per cent. of mankind have tuberculosis in their lives, two-thirds of them in the pulmonary form. As on the other hand, tuberculosis only shows a mortality of fourteen per cent., it is evident that it is curable. Dr. Noel Gueneau de Mussy says, "I know patients, in whom cavities were found to exist by me, and by observers whose authority is far superior to mine, 10, 15 and 20 years ago, and who now enjoy good health." Prof. Grancher tells us that tuberculosis is the most curable of all chronic diseases. Indeed, at the autopsy of people who have died of disease quite other than pulmonary tuberculosis, we often find old cicatrised tubercular lesions which prove beyond doubt that they have once had tuberculosis.

Instances are not rare where tuberculosis escapes observation and ends in a spontaneous cure, without the disease ever being revealed by any manifest symptoms, and consequently without any special treatment being followed. We may therefore conclude that tuberculosis is curable, and that it naturally tends to a cure. Laennec, the master of masters on the subject, boldly asserts it. "A number of facts," says he, "have proved to me that in some cases a patient may recover after having had in his lungs tubercles which have disintegrated

and formed an ulcerated cavity." According to Cohnheim, "the infection of tuberculosis can be overcome by the human organisms."

Generally speaking every case of phthisis is at first latent, and may even remain unrecognized for a very long time. Laennec speaks of a case of phthisis which remained latent ten years. Even in cases where the disease is absolutely certain, and, moreover, has reached a very advanced stage, there may be periods of arrest. Every doctor has observed these "truces" of tuberculosis. Tuberculosis may undergo arrest at any stage; the intermissions are more frequent and prolonged at the commencement, but they may occur even with consumptives at the stage of excavation and wasting. An improvement, sometimes very rapid and remarkable, will be seen in an acknowledged consumptive, sometimes the patient is even able to resume his occupation. He appears to be cured. These apparent cures, or truces of tuberculosis, are sometimes very prolonged, and may last several years, even 10, 20, or 30 years, or more. Thus pulmonary tuberculosis is liable to undergo arrest, even at an advanced stage, and the health may again become good enough to give rise to the belief that it is a radical cure. The quiescent period may last many years, and in some cases, from its duration, it really is as good as a cure.

Many eminent men of the past and present in their youth or early manhood were declared to be consumptive, but nevertheless they attained more or less advanced age. Goethe, who was given up as hopeless at 19, died at 81. Napoleon I had pulmonary tuberculosis at the time of the siege of Toulon. Dr. Herman Brehmer, one of the foremost German physicians, was a consumptive when he started the first sanatorium for tuberculosis patients in 1859, over which he presided for more than 30 years with great success. His most celebrated pupil, Dr. Dettweiler, entered his sanatorium as a consumptive and became his assistant, and has been over 30 years in charge of the Falkenstein Sanatorium. The late Dr. Pean, of Paris, who died at the age of 65, was declared a consumptive when 20. We may also mention the name of Dr. Francis Coppe, one of the greatest poets of modern France, who was refused by an insurance company nearly 30 years ago as a consumptive. Many similar instances may be cited where people, once declared consumptive by competent physicians, have ultimately recovered,

and pursued their vocation in life with unimpaired vigor and energy for many years afterwards.

Thus we see that the fact that consumption is curable is firmly established. Observation has shown that it is curable spontaneously, but the most successful treatment is that which is now being followed in the sanatoria, commonly known as open-air treatment. The first authenticated record of this treatment which has become so successful nowadays we find in an essay "on the cure of pulmonary consumption on Principles Natural, Rational, and Successful," written by George Bodington, of Sutton Coalfield, England, published in 1840. In this he insisted on the importance of a liberal diet, fresh air, day and night, together with systematic arrangement with regard to exercise and general treatment, in the watchfulness daily—nay, almost hourly—over a patient by a medical superintendent. MacCormac, another physician, a contemporary of Bodington, also advocated "in season and out of season, with endless courage, perseverance, and vivacity, the open-air treatment of phthisis." But the real founder of the sanatorium treatment of tuberculosis was Hermann Brehmer. He at least convinced the world in spite of fierce opposition that abuse, of the soundness, and importance of sanatorium treatment, and thus the first sanatorium was opened in 1859, at Gorbardsdorf. His views were not generally accepted. The efforts of men like Otto Walther, of Nordrach, Rohden, in Germany, Sir Hermann Weber, in England, Blake and Trudeau, in the United States of America, have made the open-air sanatorium treatment a great success.

In my humble opinion, all patients with consumption should go to a sanatorium at the beginning of their treatment, at least to learn how to carry on the treatment afterwards at home. During my one year stay at the Nordrache Colonie (Dr. Otto Walther's Sanatorium), I was convinced that even the most desperate case has a chance of recovery. The sight of such a desperate patient improving, encourages others, who are in better condition, towards the hope of recovery. There are other advantages which must not be overlooked and which cannot be had in a private house. In the sanatorium the patient is isolated from the excitements and distractions of ordinary households. His whole life is subject to medical supervision. Special precautions are taken to protect the patient from re-infec-

tion and to prevent the spread of the disease to others within or outside the institution. In most of the sanatoria the following principles of treatment are followed:

1. To breathe fresh air at all times, day and night.
2. An abundant quantity of food, in which milk, fatty food, and vegetables occupy an important place.
3. Exercise and rest are systematically regulated, according to individual necessities.

Open air: It is so delightful to continually breathe fresh air, that those who have got once used to open air treatment cannot be induced to sleep in a room with the windows closed. It has been shown that no amount of exposure to wet, or any variation of temperature causes the most delicate patient to catch cold or to suffer any other harm, so long as open air life is led and the exposure is constant. If patients are well nourished, sufficiently clothed and sheltered from the wind, any degree of cold may be defied. It is a well known fact that tuberculosis runs a relatively rapid course in the warm climates, and that patients who gained weight and improved in health during the winter lost ground as soon as the warmer weather set in. Were fine weather and freedom exposure so essential, the remarkable success of Nordrach Colonie in the Black Forest, could not have been achieved. According to Hillier, "there is no climate which can be regarded as a specific remedy for phthisis, and there is none so bad as to preclude the hope of recovery under rational open air treatment."

Trudeau performed a series of experiments and showed that rabbits inoculated with tuberculosis confined in a damp, dark place rapidly succumbed, while others turned out to run wild, recovered or developed only slight lesion. Sir Samuel Wilks gave a remarkable illustration of the effect of the open air. He said that the idea used to be to keep up a high temperature in the houses of certain animals from the tropics. "Now they let these animals out even in winter into the fresh air; and the mortality is considerably less." The report of the Royal Commissioners of Tuberculosis showed, it is among the closely confined milch cows that tuberculosis is principally found, whereas among the cows run in the open air in Jersey, it scarcely exists. Among sheep, which are practically never housed, tuberculosis is rare. From the animal world the evidence is clear as to the effect of open air in preventing as well as curing tuberculosis.

Daremborg, himself a doctor, derived immense benefit from open air. He writes, "the life in open air, night and day, stimulates the appetite, improves the digestion, suppresses the fits of coughing, facilitates expectoration, and the respiratory movements, invites calm sleep. . . . Generally both fever and sweat gradually disappear." The consumptive patient need not be afraid of exposure. He needs fresh air in all its natural simplicity. He should live night and day in the open air. Being always in the open air, no matter what the temperature may be, there is no danger of catching cold—one soon gets accustomed to the life, and in a short time the patient feels the need of fresh air so strongly that he can hardly bear to be in a room the windows of which are shut. To live with open windows is not sufficient, he should be able to bear every inclemency of weather. He must go out in all weather, cold, heat, wind or snow. It is only by this means that he will become hardened and secure against all colds and chills.

Food: In tuberculous patients the loss of appetite is one of the early symptoms noticeable and with the progress of the disease it gets worse. It is now admitted by all that, in the treatment of this disease, one of the most important points is to give a sufficient quantity of nourishing food, not only to make up the past loss, but also to maintain the body weight appreciably above its normal weight. The quantity of food eaten must be sufficient—at least equal in amount to that which is eaten by an ordinary healthy individual. This will stimulate the process of repair, increase the resistance of the individual and lessen the susceptibility or tendency towards relapse. Weir Mitchell has shown that a rise in weight up to a certain point goes hand in hand with a gain in all other essentials of health. It is important to take patient's weight once a week. The weighing should always take place at the same hour and under the same conditions. This is a good guide of the progress of the patient and he also finds practical encouragement from the progressive increase in his weight. The food should be as varied as possible, the best procurable and cooked in an appetising manner. According to some authorities the importance of the sanatorium cook is only second to the medical man. Dettweiler, when asked whether he used drugs much in the treatment of consumption, pointed to his kitchen and exclaimed, "that is my pharmacy, there is my chemist's shop." Consumptive patients must be persuaded by every possible means to eat sufficient

amount of food, in other words, patients must not be guided by their appetite, and this is one reason why tuberculosis individuals should spend some time in an open air sanatorium where they can be trained to eat large quantities more easily than at home, for they not only eat under the immediate eye of the physician, but they see other patients worse than themselves taking large quantities without discomfort. With fresh air and exercise and with rest before meals the appetite is good and patients seldom have any difficulty in eating the necessary quantities.

The solid food has been found to be the best that a consumptive should take; in many cases it is the means of reducing fever. Tuberculosis patients derive greatest amount of benefit when placed on an ordinary diet, to which an excess of fat is added. In consumption, with high fever, the digestion both of nitrogen and fat is good. Thanks to the valuable researches of Goodbody, Bardwell and Chapman, the feeding in pulmonary tuberculosis has now been placed on an accurate and scientific basis. They have shown that quantities of food which produce illness in ordinary individuals, have a favorable effect upon consumptive persons. They have also shown that the absorption of fats by consumptive patients is excellent. "The most pronounced anorexia and dyspepsia may co-exist with normal absorption, and the gastric analysis on such patients affords evidence of normal secretion."

Brehmer insisted on the importance of an ample supply of vegetables, as he found that patients with advanced disease can chew and swallow meat more easily with vegetables. Milk is one of the best foods for increasing the weight, and in most sanatoria patients take from three to five pints a day until they have recovered their normal body weight. As the patient improves and the disease becomes quiescent the amount of food is diminished.

It has been demonstrated that satisfactory progress is not made if the patient's natural appetite and inclinations alone regulate the amount of food taken. He has usually been on a diet too small to prevent loss of weight, and insufficient to reinforce his powers of resistance. A small addition to what may be roughly considered a healthy man's normal diet is necessary for a person suffering from pulmonary tuberculosis. The stomach itself shares in a striking manner the general invigoration; it responds to the increased call and both appetite and digestion

are benefitted. And if the good sense of the patient is appealed to, and with a little persuasion he will easily see that this is an essential part of treatment. In a very large proportion of the patients in sanatoria, no serious objection or difficulty is encountered in getting the increased quantity of food taken. It is a most remarkable effect of open air treatment that in most cases the signs of disorder of the digestive tract rapidly disappear, and the stomach can be roused to greater functional activity by increasing the demand made upon it. If there is difficulty in adding the required amount of weight to an individual, one of the most effective procedures is to increase the quantity of milk.

Rest and Exercise: A life of rest during fever is most important for the cure; it is the only means of preventing the wear and tear of the system. The consumptive needs all his strength to fight the disease. Rest must be as complete as possible—not only of the body, but of the mind also, by cessation of all intellectual works. This means it is necessary for the patient to give up his daily occupation entirely and devote himself solely to the treatment of his disease. The patient should rest in bed all day, and should not leave his bed until his temperature has been below 98.6F for at least a week. In the treatment of tuberculosis, one of our main objects must be to maintain the temperature of the patient at a normal level. Any thing that may tend to increase the fever or lead to the exhaustion of the patient, will assist the progress of the disease. Therefore all forms of excitement, mental or physical, must be discouraged. Nothing so harmful as over-exertion of body or mind. Rest is one of the three chief features of the open-air treatment.

It is now admitted by all authorities that for the body to be in perfect health it must be maintained in activity. Exercise keeps all the organs of the body in a healthy condition. It helps the elimination and strengthens the nervous system. Exercise plays an important part in sanatoria treatment. As a rule no exercise should be allowed if there is any elevation of temperature. In many instances patients living in their own homes do themselves serious and irreparable injury by taking injudicious and unsuitable physical exercise. The weight gained with full feeding during the course of rest is due rather to increase of fat than of muscle. It is therefore necessary that this soft flesh must be transformed into hard muscle by a systematic

exercise. Exercise should be commenced with great care, its extent must be regulated and its effect carefully watched. Where great weakness is present, the patient should walk very slowly, only for a few minutes at a time to begin with. If no unfavorable effect is produced, the exercise is increased week by week, both as regards vigor and extent. Exercise should never be pushed so far as to cause fatigue or to lead to a return of disease or cough or to any other bad symptoms. The patient must not hurry, even if caught in a shower, a little rain would not do so much harm, as would any increase in the number of respirations by increasing the work of the lungs. Brehmer attached great importance to hill climbing for the improvement of the heart and lungs. Walther is also an advocate of the same principle. It is usual for the walk to commence with an ascent which the patient takes at a slow pace at first, then he should rest for a while before commencing the homeward walk which is down hill. When recovery is almost complete longer walks may be taken. In fact towards the end of the cure patients have been known to walk ten or twelve miles at a stretch. The chief criterion of the effect of exercise on the patient is the observation of the temperature.

The treatment which appears so simple and seems to be the same for each patient, is after all not so, on the contrary it is perfectly distinct and varies with every case, therefore the supervision of a physician is essential. It can never be successful without the guidance of a physician. It is necessary, above all things to know how much food and how much exercise a patient can bear. The slightest error has often proved fatal. It has been found that the percentage of recovery of consumptive patients under medical control is much greater than that of those who merely consult a physician when they think it necessary. It is because of the continual and close attention of the doctor who knows exactly what his patient's needs are, that this treatment is so successful.

HYDROGEN PEROXIDE IN PURULENT CYSTITIS.—(A. Weith, *Semaine Médicale*, February 1, 1911). A troublesome case of purulent cystitis in a man of eighty-four years is described. Boric acid injections, and afterwards silver nitrate, had no effect. The bladder was then washed with 200 grammes of dilute hydrogen peroxide (2 volumes), with immediate good result. A slight sensation of heat was produced, without any pain, and the amelioration was so marked that nothing more was done for several days. Then the injections were renewed with 3-volume solution at intervals of increasing length, until finally the urine became clear and the patient was eventually cured.—*The Prescriber*.

THE KIDNEY COMPLICATIONS OF ACUTE INFECTIOUS DISEASES.

BY

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(Read before the Northwestern Homœopathic Medical Society, April 13, 1911.)

THOSE acute infections most commonly complicated by acute nephritis are scarlet fever, diphtheria, ulcerative endocarditis, smallpox, yellow fever, cholera, typhus, erysipelas, pneumonia, measles and acute articular rheumatism. Less commonly follicular tonsillitis, parotitis, chickenpox, syphilis, gastroenteritis, bubonic plague, whooping cough, influenza, slight septic infections or slight purulent affections, cerebro-spinal meningitis and malaria.

So far as figures go, statistics vary as to the percentage of cases of true nephritis complicating infections, but from what I can find, it is reasonable to suppose that this complication occurs in less than ten per cent. of most infections, although Blum found in 140 cases of pneumonia that 18 per cent. had nephritis. About ten per cent. seems to be a fair guess for the number in scarlet fever, and perhaps five per cent. in erysipelas. Goolkewitch found evidences of nephritis in ten per cent. of 220 autopsies of infants from two to nine months old, presumably dead from various infections. We are accustomed to think of nephritis as more likely to occur in severe "malignant" cases of the various infections, but the converse is not necessarily true, since severe and fatal cases of acute diffuse nephritis are positively known to follow cases of scarlet fever so mild as to have affected the child but little. Again even as lightly regarded infections as chickenpox and whooping cough have been followed by dropsy and fatal uremia.

Unfortunately, however, acute nephritis with its mortality of thirty-three per cent. is not the only renal lesion complicating our acute infections. The relationship between the much dreaded subacute nephritis with its slow course, obstinate dropsy and urine-laden albumin, which most of you know as chronic parenchymatous nephritis, is uncomfortably close and it is more than probable that this slow-moving disease has an etiology in the various infections although in certain cases the cause is undiscoverable by us.

It is known that so-called chronic cases develop from erysipelas, malaria and pneumonia, and it is probable that by "chronic" is meant what we now call sub-acute diffuse cases, although it is claimed that the acute nephritis of malaria may become slow and that true chronic contracted kidney develop from it.

Chronic cases may follow even as lightly regarded a malady as measles. Thus in my own experience measles occurred in a boy ten years of age, followed by occasional renal hematuria with more or less dropsy for two or three years (subacute hemorrhagic nephritis); recovery so-called and apparent good health for thirteen years; chronic interstitial nephritis, secondary, with retinitis albuminurica for two years and death from uremia.

It follows from the above that it is well worth our while to watch the urine in every infectious case when it is possible for us to do so.

Dr. Anson Cameron's rule of enforcing milk diet with stay in bed for twenty-eight days in scarlet fever cases cannot be too highly praised from the standpoint of prophylaxis of nephritis, but it is quite unlikely that in all cases of scarlet fever in private practice this régime can be carried out, and second, it is more than likely that in most cases of the so-called lighter infections it certainly cannot be carried out on general principles merely. In other words, we need (a) a "talking point," by which we influence the patients, and (b) a scientific foundation for ourselves on which to rest our opinion as to what should or should not be done. If the child is out of danger, it should certainly be allowed the benefit of fresh air and moderate exercise just as soon as possible. A healthy child confined to the house against its will is not likely to be either a parent's joy or a doctor's friend.

Let us take up three common infections, scarlet fever, typhoid and pneumonia, one after another, and consider the condition of the urine in each one and what it means.

Scarlet Fever: The urine decreases in quantity as the disease progresses; increases in specific gravity and acidity, and in a few days albumin may appear, usually in amount only a trace, which is sometimes more evident after addition of acid than by the action of heat alone being likely to be mixed with mucoid or so-called "nucleo-albumin." The sediment, however, is negative so far as blood and casts go, although amor-

phous urates and a few leucocytes will be found; as long as this is the condition well and good. The diagnosis from a kidney standpoint is acute parenchymatous degeneration not nephritis, and if the child dies from the infection with urine in the condition as above, the only renal changes found will be microscopic, i. e. degeneration of the epithelium of the convoluted tubules. If the albumin disappears as the case goes on, and the urine becomes more copious and of lighter color, the renal condition is improving. In such cases it is probable that nephritis will be escaped altogether. But close watch should be kept on the urine for not less than three weeks and preferably four.

Suppose now that after a few days of fever, albumin suddenly appears in larger quantities in the urine without edema in the patient and without blood in the urine. Such a phenomenon is noticeable every now and then in scarlet fever and puzzles the physician not a little. He is still more puzzled when after a day or two, usually three or four days, the albumin diminishes and abruptly disappears or continues as a plain trace only. The case is one of acute interstitial nephritis, a rare condition, but one which Councilman found five times in twenty cases of scarlet fever. The pathological feature is an intense cellular infiltration in the interstitial tissue, particularly marked at the bases of the pyramids, just beneath the capsule and about the glomeruli. Very rarely there is dropsy and uremia. The course is rapid and in some cases the urine may become normal before death from the infection itself.

Again, suppose that at the end of the second week albumin appears in the urine, which again becomes scanty and we find a few red blood cells and a few yellow casts. These findings are evidences of acute hyperemia, the forerunner of acute nephritis. It is my experience that these phenomena of active hyperemia assigned by Ogden to the high temperature stage of all infections are not commonly seen at all until nephritis impends. In other words, acute nephritis, in my experience, begins as acute hyperemia and not as acute parenchymatous degeneration.

Coincident with, or soon following the discovery of albumin, red blood cells and the few yellow casts, the patient has a slight rise of temperature, is puffy under the eyes, voids urine more frequently, but not in increased quantity and may have back-

ache; the albumin, casts and blood increase, the edema increases, the patient's skin becomes waxy, and the various uremic phenomena of true nephritis appear.

Suppose now that the nephritic symptoms begin suddenly and are violent, scanty urine and convulsions occurring within the first few days after the nephritis is shown by the urine and otherwise; the case will probably prove to be fatal with recurring convulsions or coma.

Suppose, on the other hand, the case progresses gradually for ten days, until about the seventh or eighth day the urine is scanty or even suppressed; the probability is that the patient will slowly recover, except in such cases in which either there is persistence for several days of scanty, almost black urine loaded with albumin, or when the suppression is obstinate, forty or fifty hours usually being a maximum fatal period of suppression.

Suppose now that at no time the urine is entirely suppressed, very scanty or highly bloody, but after a few days (less than a week), improvement sets in; keep the child quiet; there will be a relapse which will be shown by decreased urine, higher pulse tension, etc. Relapsing cases are tedious, since between relapses the child may insist that it is well. Such cases, however, will recover in the usual four weeks if well managed, but uremic convulsions may suddenly take the patient off, if it is allowed to get up, eat heartily, play out doors, become chilled, etc. In some cases the disease lasts eight or ten weeks instead of only four or five.

Lastly, suppose the child grows slowly and progressively worse, the dropsy increases until the patient is swollen from head to foot; the urine contains no blood or but little, while albumin is enormous in amount, and casts numerous, granular, fatty or waxy; after several weeks of such a condition the chances of an acute nephritis are small. It is probably subacute and will drag along for months with perhaps sudden "recovery" any time after six months or a year, with chronic albuminuria remaining and the likelihood of death from secondary contracting (atrophic) kidney always hanging over the patient; or else death follows from the subacute disease itself, due to dropsy or exhaustion, in a year or two.

These various types of renal conditions in scarlet fever I am confident will be recognized by one or the other of you. All of

you have seen this one and that one here and there, but perhaps not every one of you has seen them all.

I am often asked, "how long will albumin continue in the urine after recovery?" To this I will say that a trace may persist for six months to my knowledge and yet finally disappear forever.

Typhoid: In forty-six out of seventy-five cases of typhoid Osler found the evidence of acute parenchymatous degeneration, characteristic of all infections. One diagnostic feature of typhoid by the urine route, however, is the absolute increase in urea which in grammes may run as high as double the normal quantity for twenty-four hours.

As the typhoid progresses, nothing further of a renal nature than the above may be noticed until after the fall of the fever when a genuine acute nephritis may set in, causing the physician much apprehension. The fear, however, is usually groundless, for in most cases the nephritis is mild and terminates in recovery, being less fatal by far than scarlet fever.

On the other hand, a severe acute nephritis may start in with typhoid fever and the latter be unsuspected; there may be fever, backaches and scanty albuminous bloody urine. Osler found this in 2 out of 25 cases. The prognosis is then unfavorable. Again, a severe acute nephritis may set in at the end of the first or second week; this also is serious. It becomes, therefore, of considerable prognostic importance in typhoid to recognize the signs of nephritis early. The diazo reaction should be sought and the Widal test should be made in any case of supposed acute nephritis with a high temperature and especially with an increase in the total amount of urea in twenty-four hours, since in uncomplicated acute nephritis a degree or two only of temperature and a decrease in total urea are usual.

Pneumonia: More than once I have been called in consultation to see cases supposedly entirely nephritic which have been found to be pneumonia with nephritis or nephritis with pneumonia. In general the urine of pneumonia is that of acute parenchymatous degeneration already described, but, like typhoid, urea may be greatly increased in twenty-four hours' quantity. From a prognostic standpoint it may be said that a constant daily diminution of the urine with an increase in specific gravity, color, and acidity shows that the disease is increasing in intensity. In one case of pneumonia before the diagnosis could be made by several experienced physicians.

I suggested the probability of pneumonia by finding forty grammes of urea per twenty-four hours in the urine of a patient with a fever, who was eating nitrogenous food enough to account for twenty grammes, since he had no meat at all, but only milk and light broths. Again, absence of chlorides after the first day and continued absence for three days points to pneumonia. Albuminuria without nephritis, but merely that of acute parenchymatous degeneration of a severe type occurs in pneumonia usually most pronounced at the height of the disease, i. e. when the patient is in all particulars worse. Even if the amount of albumin is considerable, up to the first mark in the Esbach tube, it may disappear rapidly after crisis in a week's time or less. But the albuminuria measures in general the intensity of the infection; if it is noticeable early before the pulmonary circulation is much obstructed, it denotes a high degree of infection and severe depression, hence is an unfavorable sign. Sturges found that in twenty-seven cases in which albumin was considerable in amount five proved fatal while in seventy-one cases without measurable amount of albumin, only two proved fatal. The sudden appearance of a large amount of albumin in pneumonia followed in a few days by disappearance of it without renal symptoms suggests the rare condition mentioned above under scarlet fever, being that of acute interstitial nephritis.

Occasionally a true acute nephritis sets in during pneumonia; then as in typhoid the progress is unfavorable as the patient has "a high fever, an irritable stomach and a clouded mind."

Since pneumonia is fairly common in cases of chronic nephritis and of diabetes mellitus, the presence on the one hand of long, slender hyaline dark granular, and perhaps waxy casts in number found in the urine of a pneumonia patient would suggest inquiry into the history and cardiovascular condition; the finding of sugar in quantity would suggest the presence of diabetes. Pneumonia in such cases is likely to prove fatal.

My conclusions in regard to the kidney complications of acute infections are as follows:

1. All acute infections probably produce more or less acute parenchymatous changes in the kidneys, which is not necessarily nephritis.

2. These parenchymatous changes in the earlier stages are of the nature of cloudy swelling and fatty change in the epithelium of the convoluted tubules principally.

3. These parenchymatous changes are manifest in the urine by decrease in volume, increase in color, specific gravity and acidity in the milder infections and by the appearance of albumin in small quantity in severer infections with possibly a few casts and usually leukocytes in small number.

4. Occasionally in certain infections (scarlet fever, diphtheria, measles, pneumonia, whooping cough, acute endocarditis, and epidemic cerebro-spinal meningitis) an acute interstitial nephritis occurs.

5. This acute interstitial nephritis manifests itself in the kidney by an intense cellular infiltration in the interstitial tissue, the cells being identical with the so-called plasma cells of Unna.

6. Acute interstitial nephritis shows itself in the urine by the sudden appearance during the infection of albumin in quantity which practically disappears in a few days. Other clinical features are rarely present though in one or two cases dropsy and uremia have been reported.

7. Acute or active hyperemia is in my experience more likely to be a forerunner of acute diffuse nephritis than to exist *per se* in all infections as claimed by Ogden and his followers.

8. This active hyperemia manifests itself in the urine by the appearance of albumin in more or less quantity with yellow casts and red blood corpuscles and is soon followed by acute nephritis.

9. Acute diffuse nephritis with its dropsy, waxy pallor, uremia, scanty, usually bloody, highly albuminous urine containing numerous casts, (leucocyte, epithelial, hyaline, yellow granular blood, hemoglobin, and perhaps a few coarsely granular) but without dark granular or highly fatty casts at first, and seldom if ever waxy casts.

10. Acute diffuse nephritis renders the prognosis unfavorable in typhoid and in pneumonia when occurring early.

11. Acute diffuse nephritis terminates fatally in one out of three cases when following scarlet fever.

12. In mild infections, even as chickenpox, may be followed by fatal acute diffuse nephritis.

13. In some cases a diffuse nephritis, apparently acute, lingers and becomes subacute.

14. Subacute cases are obstinately dropsical with highly albuminous urine containing dark granular and fatty casts perhaps also waxy.

15. Subacute cases may terminate apparently favorably after six months or more, but albuminuria persists and the kidneys pass on to a chronic stage of atrophy.

16. Subacute cases lasting more than a year are likely to terminate fatally. The kidneys are then large, soft and fatty, or hemorrhagic.

17. Chronic contracting kidney soon following infections is rare, but it is claimed that the acute diffuse nephritis of malaria may become slow and that true contracted kidney may develop from it with its cardio-vascular changes (hypertension, etc.) and uremic phenomena.

STUDYING THE EYE IN EUROPE.

BY

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THE establishment of the Vienna School of Ophthalmology by Barth, under the patronage of Maria Theresa, and her son Joseph the Second, was an important step in placing ophthalmology in its correct relation to other departments of medicine. Special wards were set aside in the "Allgemeines Spital" for ophthalmic cases, which to this day are used. Even years before this the Germans proved their special talent for ophthalmology. In 1573 Barthisch of Königsbruck published his "Augendienst," which graphically illustrates the operation and instruments then in use. His introduction to his cures is unique, and tells how, "Under God's will and the skill of George Barthisch," the eyes of so-and-so were cured.

Before going into the outline of study, I think some comment should be made upon the student's working library and knowledge of German. Without a reading knowledge of German an ophthalmologist can hardly be up to date. This is because of the highly scientific value of the German ophthalmological journals, and of their activity in their pathological laboratories. In spite of the fact that a large percentage of American courses at Vienna are in English, yet without

a knowledge of German, one is excluded from men like Fuchs, Dimmer and Wintersteiner in their university courses. This trio really represents the highest type of work obtainable. If one intends to study abroad, a conversational knowledge of German is absolutely imperative. Again German must be known, otherwise the student will keenly feel the pangs of humility when he finds himself among leaders of the medical profession with but English to convey his ideas. It must be remembered that the standard of education in Europe depends largely on a knowledge of languages.

The following books are commended: Fuchs' "*Lehre der Augenheilkunde*;" Axenfeld's "*Bacteriologie des Auges*;" Graefe's "*Pathologische Anatomie des Auges*;" Schmidt-Rimpler's "*Erkrankungen des Auges*;" Parson's "*Pathology of the Eye*," four volumes; Posey's and Spiller's "*The Eye and Nervous Diseases*." The best German ophthalmic journal is "*Archiv für Augenheilkunde*," edited by Axenfeld und Uthhoff.

It must be remembered that the Vienna School of Medicine has not the prominence it had years ago, for the smaller German universities with modern equipment and better financial conditions, are doing excellent work along special lines. With regard to the specialties, eye, ear, nose and throat, Vienna is quite famous, yet, if one has a fair amount of time in which to complete one's studies abroad, it is advisable to see and even to study in other European clinics. The advantages of Vienna are the graded courses and the possibility of studying a specialty from every standpoint of general medicine. The Vienna school is a teaching school. Nowhere in Europe will one find such great enthusiasm displayed by teachers of medicine.

For the first few months it is better to devote considerable time to German (both conversational and medical) and to limit course work. Usually five or six courses are sufficient for a beginner. Some of the Vienna teachers advise still fewer courses. One fact is sure, there is too much tendency to overcrowding one's work, especially when one is but a beginner and collateral reading a necessity.

Upon arriving in Vienna, the student should join the American Medical Association and introduce himself to the doctor having charge of the American courses for the eye. There are two large eye clinics in the "*Allgemeines Spital*;"

the Schnabel Clinic, and the Fuchs Clinic; the former paying particular attention to ophthalmoscopy, while the latter is devoted to a systematic study of external diseases of the eye. It is advisable to begin laboratory work with histopathology from Sallzman for two months, then the student is prepared for the course on pathology of the eye from Wintersteiner. With this training the student is prepared for actual laboratory work. As far as muscle work, it is decidedly better to take Meller's anatomy of the eye muscles before taking Lauber's course. Vienna is the place to get sinus work in conjunction with the eye work. The best plan is to begin with the anatomy of the sinuses by Hirsch, followed with two diagnostic courses under Glass, and finally, working in one of the various nose and throat clinics for several months, paying special attention to the sinuses, for it must be remembered that ocular headaches are due in ten per cent. of cases to some form of sinus trouble.

The student's work in Vienna is not completed until the following nervous courses are taken: Marburg, anatomy of the central nervous system, and Docent Fuchs, and Prof. Redlich's clinical courses have been attended. Because of the abundance of material a thorough knowledge of the eye findings in diseases such as tabes, multiple sclerosis, tetany, and brain tumors is acquired. After four or five months of course work a clinical position in one of the eye clinics should be sought for. It is here that one really learns the eye. The daily visits to the wards whereby external disease and fundus cases are followed from day to day, and post operative complications studied, rounds out the course work. Finally, the student is put on the regular operative list and privileges shown which are unheard of and unknown in America. You are part of the clinic, and the clinic is a part of you. Naturally, it is only the older men in Vienna who reach this latter stage of studying.

One great advantage of the Schnabel Clinic is its control of the medical and nervous clinic. Regularly four times a week visits are made to these clinics and hundreds of cases are reported and the relation of fundus diseases to general medicine is thus learned. This work represents the highest plain of studying ophthalmoscopy and is only obtainable by becoming a volunteer assistant in the clinic. Drs. Von Benedek and Ruttin have charge of this important work, and if

the student is fortunate to get under their personal instruction he has the advantage of learning from men who have devoted years to this field of ophthalmology.

Visiting or studying in the German clinics should be done after the Vienna school has given the student a fundamental basis with which to do individual work. Of the German universities Breslau stands foremost. This is not because of its modern equipment but for the tremendous weight the school has upon the ophthalmological world (Uhthoff, Axenfeld, Groenow, Heine, Lenz, Cohn). The laboratory facilities here are the finest in the world. An original research investigation is easily gotten. Uhthoff's activity in the relation of eye diseases to nervous diseases and the course given by him on this subject is the best that is given in Europe.

The best time to visit this clinic is in the Winter Semester (November 1st to March 1st), the day's routine is as follows:

9 o'clock, redressings in the wards.

10 o'clock, rounds through the clinic by Prof. Uhthoff and staff.

10.30 to 12.30, work in the dispensary.

12 to 1.30, university clinic held by Uhthoff.

1.30, operative clinics.

The afternoon is devoted to laboratory work, and the evening visits to the wards.

The student being alone in Breslau will find much more personal attention shown him and he will get better acquainted with the social life of the Germans and the German University life. Other clinics which are attracting Americans are Prague (Elschnig); Freiberg (Axenfeld); Munich (Eversbusch).

I think it a great mistake to come home without spending sometime at Moorsfield (Royal Ophthalmic Hospital), in London. The refraction here is the best I have seen in Europe. It hurts no student to get acquainted with the European methods of refraction. It will act as a check upon some of the eccentricities he will find practiced in America. Fundus work is very good in London, though it may not be so concentrated as in Vienna. At regular intervals courses are given at Moorsfields. Pathology is very good. It is not necessary for Americans coming from a teaching centre like Vienna to take course work in London. The refraction department is wonderfully equipped. The student can refract from 9 to

2 P. M. uninterrupted, working under men as Parsons, Worth, Collins, etc. Quite a few Americans obtain their practical work in refraction at Moorsfield and pursue the summer ophthalmological course at the University at Oxford which is a few hours from London.

The courses in Vienna are given every month in the year. The best time to visit the German clinics is in the University semesters, November 1st to March 1st, and April 15th to August 1st. In closing I take this opportunity of thanking Dr. William Campbell Posey for outlining my studies and in securing my appointment as volunteer assistant to Prof. Uhthoff.

BUSINESS TRANSACTIONS OF THE HOMŒOPATHIC MEDICAL SOCIETY OF PENNSYLVANIA.

September 21, 1910.

The meeting was called to order by President Schantz, at 9.30 A. M.

THE PRESIDENT: I received two letters this morning, one from Dr. Carmichael, another from Dr. Clark, both of whom are members of the Board of Censors. The usage of the Society in the absence of the censors provides for the appointment of censors in the absence of those regularly elected. We have a number of applications for membership which should be acted upon; and I want to appoint Dr. Hartman, Dr. Fleagle and Edward Wilson, of Pittsburgh; who will please take these applications for membership and perform the duties of censors.

Last night at our meeting, there being no business session, there was no notice taken at all of Dr. Arndt's address. I feel that it is due Dr. Arndt that a vote of thanks be passed by the Society; and I would ask someone to make that motion.

DR. HARTMAN: I move you that the said vote of thanks be extended to Dr. Arndt.

(Carried).

THE PRESIDENT: In the report of the Board of Trustees of this Society, a recommendation was made that at the business meeting this morning the question of a proposition that was presented to the Board of Trustees be made a special order of business. That proposition is the acceptance or

rejection of an offer that has come to the Society to take over the publication of our transactions, discontinue the publication of our transactions in the book form, and make the *Hahnemannian Monthly*, a homœopathic journal, as you all know, published in Philadelphia, the official organ of this Society.

The proposition, as it came to us, was that the *Hahnemannian Monthly*, for the payment of \$2.00 per member, will take over from this Society the obligations of the expense of publishing our transactions; will issue the transactions in the regular issue of *The Hahnemannian Monthly*; allow space for the issuing of all our notices.

For the sum of \$2.00, as I say, the transactions are to be taken and published. The offer is on a basis upon which the Society is to receive one-half from the profits of *The Hahnemannian Monthly*. Another advantage is that of receiving into membership the new students who are at the present time taking *The Hahnemannian*. They are accepted as subscribers on the payment of a year's dues, but given credit for two years' subscription. In the terms that are submitted to us \$600.00 salary is allowed out of the profits to the editor of *The Hahnemannian Monthly*. The advertising work in the journal naturally will have to be paid for at the usual advertising rates; that is, I mean to say the usual commissions for placing business advertisements, of course, would have to be deducted. After a payment of interest on a basis of \$1500.00 at 5 per cent. is allowed, the Homœopathic Medical Society of Pennsylvania was to participate in the profits of the business to the extent of an amount equal to that paid to the editor. Beyond that, they share and share alike.

I am not going to discuss the *pros* and *cons* of this affair. It is not a fair position to place me in, gentlemen, to compel me to make you this offer. It is not fair to either side. I will ask Dr. Piper to supplement any statement, or any thing that I have omitted that occurs to him.

DR. PIPER: We went into this subject rather minutely at our meeting on Monday night; and the terms, as Dr. Schantz has, no doubt told you, is at the rate of \$2.00 per member for the members of the State Society. It is very unfortunate, as Dr. Schantz has, no doubt, told you, that the papers were inadvertently carried away by Dr. Weaver this morning; but I have no doubt that Dr. Bartlett can elucidate this matter, more

so than we have done. It certainly is a question for the Society to decide; and I hope that you will ask any questions in regard to the matter that you might feel inclined to, and he will try to answer the proposition as best he can. There is no question whatever in my mind but that it will be a good thing for the Society.

(The speaker called down by the President, who says):

THE PRESIDENT: Don't discuss the points of the proposition.

DR. PIPER (Continuing): It is one which the members of this Society should certainly look into very, very seriously; and, as I say, I hope you will ask any questions which you feel inclined to ask.

DR. BARTLETT: The idea started ten years ago, and then was dropped, and then was brought up by one of the gentlemen of the Board of Trustees a year ago, and again not considered feasible; but, finally, it took quite tangible shape this year. In the first place the proposition provides the virtual, not necessarily the actual, taking over of the journal as a piece of property; that is entirely at the option of the State Society. *The Hahnemannian* is incorporated under the laws of the State of Pennsylvania, with a total capitalization of \$1500.00 fully paid in. Our proposition is that the State Society pay \$2.00 for each member in good standing for their journal subscription. *The Hahnemannian* happens to have on its list 120 physicians in the State of Pennsylvania who are not members of the State Society. The State Society now has 612 members; this will add 120 to your list. The editors or proprietors of the journal furthermore agree not to part with any of the stock of the company without the consent of the Board of Trustees of the Society. If the Board of Trustees wishes, it can buy the stock of the journal from the present owners, or they can buy part of it, or it can be more largely owned. As at present, there are 150 shares, par value \$10; and it is entirely owned by Doctors Van Lennep, myself, and Van Baun. And, as I say, we also agree not to sell any of the stock without the consent of this Board of Trustees. We reserve the right to sell to medical students the journal for two years for the price of one; because we find that if we get men to take the journal from the day they graduate, they keep on forever.

Now, we ask that these young men who are graduates

or who have taken the journal, and all our 120 names at present on the list, be admitted to membership in the Society and although these people are now paying us \$3.00, why, you pay us \$2.00 and you get the extra dollar. We furthermore agree to do all reasonable illustrations. As to what shall constitute a reasonable amount of illustrations will be left entirely with the Board of Trustees, in case we kick about it. On the present free list there are probably four or five names—owners. We do not expect any pay for Dr. Van Lennep, Dr. Van Baun, myself, or Dr. Wells. The editor of the journal shall not be myself. I wish to retire absolutely, and have been anxious to do it for five years. I am not doing any work now anyhow—Dr. Wells is doing it; but I would like to sever all nominal relations. I am perfectly willing to retain an ownership, but not nominal relations. I am willing to act in an advisory capacity, but not having any official relationship. The editor, if there is a profit under this arrangement, shall receive as a salary any profit up to \$600.00. These profits not to be cumulative; that is to say, if 1910 doesn't pay and 1911 makes \$900.00, why, then, he is not take the three hundred over and above the six hundred excess. If the profits are in excess of \$600.00, then there shall be paid to the owners five per cent. on the stock. After that owner and editor share alike. Now, the only emoluments that the editors of the journal have gotten, in all this long career, has been the books for review, and exchanges. We agree to publish all business reports and papers in the body of the journal proper. That is, all official business, discussions and papers. We won't publish the list of members and the charter and by-laws every year. That is out of the question; and no journal that belongs to a Society ever does do this. In the news pages, we will publish such manifestos or announcements as your officers wish to make from month to month. If, however, the editor thinks that such publications become burdensome, he shall refer the matter to the Board of Trustees as the arbiters. We agree to send *The Hahnemannian Monthly*, one copy once a year, to such members of the profession in the State of Pennsylvania as are not already members of the Society; in other words, we sample it. Now, Dr. Schantz, do you wish me to present any financial aspects or arguments of this thing, or just let it drop on the slate?

THE PRESIDENT: I didn't want on behalf of the Trustees to go into the financial side.

DR. BARTLETT: On the face of it, it looks like the *Hahnemannian* was adopting a loss. We just come out even at the end of the year. And on the face of it, if the business is not increased, it means a loss of \$500.00. But to be perfectly frank with you, that loss will be very fully covered by a number of items. In the first place I would say that I would expect that the amount of advertising would increase. Then you will find, also, that the subscription list in other States will increase greatly. I hope I am not regarded as egotistical as regards our Society when I say that I consider our Society, as regards quality of papers furnished, the very best organization in the Homœopathic School. Now, I believe that with the title of the journal changed, "*Hahnemannian Monthly, the Official Organ of the Homœopathic Medical Society of Pennsylvania,*" it will add very much to the subscription list, and that will mean more business. I find, too, in looking over our State Society expenses, that it will save us the expense of one secretary. Our Corresponding Secretary will no longer have the onus placed on his shoulders of working out the transactions; therefore he can do the whole thing. It will save us the \$50.00 that is paid for his stenographer's salary in the getting out. It will save us the expense of a Recording Secretary. And it will save us the expense of printing a great many monthly announcements, and enable us to communicate with our members once a month. Now, gentlemen, there is the proposition. Our desire—and everybody has a motive—our desire is to get rid of the responsibility of conducting *The Hahnemannian Monthly*; but we are unwilling to part with it, unless we put it in hands that will perpetuate it as a professional trust. There have been parties in the past, pure advertising concerns, that want to get not only *The Hahnemannian Monthly* but that have been after other Homœopathic journals of prominence, willing to pay a big price for them, but wish to use them exclusively as advertising mediums. So far as I know every Homœopathic journal in the country has refused to sell out on that basis, and we refused; but we are anxious to place the journal where it shall be a perpetual piece of professional property.

THE PRESIDENT: Now, then, the proposition is before you; I think it is fairly presented. What is your pleasure?

DR. THEODORE J. GRAMM: What is the form in which this subject is before us? Some of us came in late. Will you kindly state how the business is before us?

THE PRESIDENT: Promptly after 9.30 I called this meeting to order; and I made the statement that Dr. Weaver had the papers that had been submitted to the Board of Trustees by the owners of *The Hahnemannian Monthly*; but, very unfortunately, Dr. Weaver had left at 9 o'clock this morning for Philadelphia, and took them with him. The matter must be presented to the Society in the form that it has been presented, to-day. There was a recommendation of the Board of Trustees reported yesterday that this journal proposition be made to the Society as the special order of business for this hour. It has simply been presented as a proposition; and I await the pleasure of the Society as to what to do with this proposition that has been made to you. There are no motions before the house. We are simply acting under a recommendation of the Board of Trustees in considering something that had been presented to the Board of Trustees.

DR. J. M. HEIMBACH: Has the Board of Trustees recommended this to the Society?

THE PRESIDENT: The Board of Trustees submitted the proposition to the Society.

DR. J. M. HEIMBACH: They only submitted it, and did not recommend it?

THE PRESIDENT: Yes.

DR. J. M. HEIMBACH: Did they recommend it to take it up as a whole; or did they just present it to the Society? Did they present it with a recommendation?

DR. PIPER: The Board of Trustees did not present it with a recommendation. They presented it to the *Society*, for their consideration.

THE PRESIDENT: That is my impression.

DR. BARTLETT: I had a letter from Dr. Maddux telling me that the sub-committee in whose hands it had been left had reported, and they were all favorable to the proposition.

THE PRESIDENT: They were in favor of submitting the matter to the Society, as I understood.

DR. BARTLETT: I wish I had known that; because I would not have spoken. I thought that they were all in favor of it.

THE PRESIDENT: You see the position I am placed in. This whole matter is simply presented as a matter of memory.

DR. WARE: It seems to me that the only way out of the proposition that has been brought before us, is to leave this proposition to a committee to report at a subsequent hour. This can be then gotten together and would not take up the time of the meeting on it. It could be presented in the form that we may all understand without any question; and as there are several members who seem to be absent, they can be corralled at that time and this report can come later. It seems as if it might come in the form of a committee. I make that as a motion.

(Seconded).

THE PRESIDENT: It has been moved and seconded that the journal proposition be submitted to a committee, do you say?

DR. WARE: Committee of three or five.

THE PRESIDENT: Committee of five; they to take this journal proposition and report to this Society—when?

DR. WARE: That is open for discussion; I did not incorporate that in my motion. At this session, or at a subsequent session.

DR. EDMUNDSON: Wouldn't it be well to postpone the matter to a later hour to-day, or to-morrow morning, and hear from the Board of Trustees in the meantime? Dr. Maddux can be reached in a very short time. We can find out what the recommendation is in the matter; for I suppose, in a matter as important as this, that they have thoroughly investigated the matter before they recommended it. The committee will take a year, at least, to investigate the matter; you cannot do it in five, or six, or seven, or eight hours. I would, therefore, move the consideration of this resolution by the Board of Trustees.

THE PRESIDENT: Dr. Ware has made a motion. I was asking the Doctor to be specific in the statements of that motion. As I understand the motion—

SECRETARY POND: His motion was that a committee of five be appointed to consider the journal matter, and to report at a later hour.

DR. WARE: I think that will be sufficient; and then if that committee be continued, that will be sufficient. Report at a later hour, at this session.

THE PRESIDENT: There is a motion before the house to refer the journal proposition to a committee of five, to re-

port at a subsequent time. Is that the wording of your motion?

DR. WARE: "Hour," at this session.

THE PRESIDENT: "Hour of this session." Any remarks on this motion?

SECRETARY GRAMM: I might say I put the question as I did, whether the proposition could be placed before such a committee in writing in order to report at a later hour to-day; and Dr. Bartlett says his recollection of all the details of that proposition are not complete, and, therefore, the appointment of such a committee at this time, to report to-day or to-morrow possibly, would not help us any. The proposition I think I have pretty clearly in my mind from the reading of the details; and yet at the same time there are so many details that must be gone over before we can decide for or against this proposition that we ought to have every one of them in writing and know where we stand, and know what we are discussing, and why we recommend or accept any recommendation from a committee.

DR. BARTLETT: Dr. Gramm has altered the words of my remarks in such a way as to entirely alter the meaning of the remarks, however, innocently he has done so. Now, with time to think, and from conversation, there is no doubt in my mind that we will bring out all the necessary details, and a great many others. There is one proposition, however, or one sentence in the letter which I wrote Dr. Maddux, "If there is anything not fully covered in this letter to sufficiently protect the Society, let me know of it and you will get it."

DR. BOWIE: This matter is of such great importance that every member of this Society ought to be thoroughly conversant with it; and I think that the proper way to do this business is to have the whole thing printed and a copy given to each member, so that they can make up their minds in regard to the matter then.

I don't have a very good idea about this thing myself; although I have heard what has been said; and I think that every member of the State Society should be thoroughly conversant with this whole proposition, and that it should be put in such form that we could read it leisurely; and then we could come to some definite conclusion. I don't think any hasty action is desirable, at all.

DR. GAY: I don't see how we can take any action on this

thing at all, in its present form; and it strikes me the proper persons to take it up would be the Board of Trustees; and it seems to me it should have come before the meeting with some definite recommendation, either for or against. I would like to offer an amendment to the present motion, that the—that instead of the word “committee,” that this matter be referred to the Board of Trustees, with instructions to report at a subsequent session of this meeting. They are the proper persons to take it up; they have already threshed the thing out, more or less. If we appoint a committee, they will simply have to go to Dr. Bartlett and to the Board of Trustees to find out the data; and the Trustees certainly ought to know it now, if they are ever going to. If they would bring a recommendation to us, we could act on it.

THE PRESIDENT: Permit me one unparliamentary privilege at this time; it is not in sequence, and I am asking the indulgence of this meeting to do this: Dr. Maddux has any incomplete information that we wanted a while ago.

DR. F. W. BOYER: This matter has now been referred to the Board of Trustees; it seems to me discourteous to take it out of their hands before we hear from them; therefore, I most cheerfully agree with the request to desire to hear from the trustees—from Dr. Maddux, the representative who is here.

THE PRESIDENT: The proposition is this, that I want to simply get before this meeting a matter; and that is as to whether the Board of Trustees recommended the adoption of the plan? That is the question I want to ask Dr. Maddux to answer for us; because that is a question that was brought up that we could not answer. Did you; or did you not?

DR. MADDUX: The action taken by the Board of Trustees, as I recall it, was this: The plan suggested so much of merit that the first action of the Board was that it be favorably recommended to the Society for their consideration. We felt such a radical move as this was one that should be understood by all the members of the Society, and that the Board of Trustees, while legally and technically empowered to make the change, had no disposition to do so if it was not the sentiment of the Society; and we recommended it to their favorable consideration, without taking any further definite action. I don't know how definitely the terms have been stated.

THE PRESIDENT: I simply want to get the information

before the Association. Now, gentlemen, I thank you for that privilege; and we will go back to the regular order of parliamentary privilege or custom; and we are discussing the amendment presented by Dr. Gay, seconded by Dr. Boyer. The amendment was to refer the matter to the Board of Trustees. Any remarks upon that?

DR. THEODORE J. GRAMM: As I understand this matter, the Board of Trustees have referred back to the Society the original proposition that was submitted to them. They have not been in a position to make a recommendation and consequently I am not in favor of the amendment. I think that under the circumstances the matter should be referred to a special committee, in view of the fact, as before stated, that this whole subject has not been presented with a recommendation of the Board of Trustees; and therefore we should not refer it to them. They want, in other words, the advice of a special committee representing the Society.

THE PRESIDENT: Any further remarks on the amendment of Dr. Gay?

DR. MADDUX: I think that that doesn't reflect the attitude of the Board of Trustees. As I said, the Board of Trustees expressed a favorable consideration; and the committee appointed from the Board of Trustees passed upon it favorably. The thought was that we did not want to take any final action without this plan met the approval of the members of the Society.

DR. WARE: I think this is all unnecessary. I think if there is a good committee appointed, that will straighten out everything; and I am not in favor of this amendment to the original motion which I presented; and I think if that passes, since we have heard now from the Board of Trustees, that will straighten the thing out and stop a great lot of hot air.

THE PRESIDENT: Are you ready to decide the question as to whether the matter shall be referred to the Board of Trustees, or to a special committee?

SECRETARY GRAMM: Is it understood that this reference back to the Board of Trustees does not include action?

THE PRESIDENT: That is my ruling.

SECRETARY GRAMM: The understanding is that the matter is to be referred to the trustees, if this amendment carries, for consideration, not for action.

THE PRESIDENT: For consideration. This is simply a

motion or an action on this amendment, as to where the business is to be transferred. We have not transferred the business.

(Call for question).

THE PRESIDENT: Dr. Gay's motion is that it be referred to the Board of Trustees; so that an affirmative vote refers it to the Board of Trustees. A negative vote refers it to a special committee. All those in favor—

(Objection).

DR. BOYER: That is not the first motion. Any negative vote will simply declare that that is the second motion.

THE PRESIDENT: I will repeat it.

DR. WARE: The question is, that this be referred to the Board of Trustees. I question much whether you can get a quorum of the Board of Trustees; and that would make it perfectly impossible to bring this up at this meeting again.

THE PRESIDENT: All those in favor of Dr. Gay's amendment give their assent by saying aye; contrary minded, no. The amendment is lost. Now we are back to the original motion.

DR. BOYER: Then let me suggest, Mr. President, now before such a motion is carried, that one or more members of the Board of Trustees be appointed on that committee, that the committee may at least have some official means of knowing or hearing what the Trustees do know.

THE PRESIDENT: Will you read Dr. Ware's motion I wanted to put before the house?

SECRETARY BOND: "To refer the journal proposition to a committee of five, to report at a later hour at this session."

THE PRESIDENT: Any further remarks upon the motion of Dr. Ware?

(Calls for question).

THE PRESIDENT: All those in favor of Dr. Ware's motion, that the journal proposition be referred to a special committee of five, who are to report—

SECRETARY BOND: At a later hour.

THE PRESIDENT: "At a later hour," during this session. All those in favor of the motion give their assent by saying Aye; contrary minded, if any, No. It is so ordered.

Now, Dr. Boyer, do you have a motion about the committee?

DR. BOYER: No, only a suggestion to the President, as to his power to appoint a committee.

THE PRESIDENT: The journal proposition is to be referred to a committee consisting of Dr. Ware, Dr. Fleagle, Dr. T. J. Gramm, Dr. Stewart and Dr. Maddux.

THE PRESIDENT: Discussion on Dr. Varner's paper will have to be deferred; as it is a mandatory provision in our by-laws that at 11 o'clock on the morning of the second day is the time for nomination for officers of the Society. The law provides for the nominations for officers; and this year we will hear nominations for the offices of President, First Vice-President, Second Vice-President, Recording Secretary, Corresponding Secretary; one for Treasurer, one Neurologist, one Censor, and three Trustees.

I am ready to hear nominations for the office of President.

DR. NORTHROP.—It gives me great pleasure to call the attention of this Society to the important part which the western section of the State, particularly the City of Pittsburgh, has played in homœopathic matters throughout Pennsylvania; to remind the Society that the personnel of the student body of Hahnemann College always contains anywhere from three to seven or eight students from the City of Pittsburgh; and to say that we have in Pittsburgh a man who has claimed our attention in various professional ways for a number of years, and who is now a prominent member of this Society, and who, I believe, will make a valuable and a powerful President for the coming year; and I refer to Dr. W. Alvah Stewart. I take pleasure in nominating him for President for the ensuing year. (Applause).

THE PRESIDENT: Any further nominations?

DR. WOOLRIDGE: I will ask Dr. Edmundson if he wishes to pass any encomiums on this distinguished member of our Society; otherwise I will, for a matter of formality, second the nomination; but I will allow him that honor.

DR. EDMUNDSON: As a colleague of Dr. Stewart, I want to second Dr. Stewart's nomination, and say that if he is elected to fill this important chair and the highest honor that can be accorded by our Society, that he will have back of him the united body of the profession of Western Pennsylvania; and that means a great deal to any man filling the position to which he has now been nominated. He has the confidence of every member of the profession in and around the district

from which he comes. He has the interests of the young men at heart. He has taken hold of them by the hand, helped them up, and has encouraged them; and I therefore feel very much gratified to be enabled to come here and speak a word for him.

DR. J. M. HEIMBACH: The gentleman looks so good to me that I make a motion that the nominations stand closed.

(Carried).

THE PRESIDENT: Nomination for First Vice-President.

DR. HAINES: For First Vice-President of this Society, I desire to present the name of Dr. Frederick D. Brewster, of Scranton—a very worthy representative of the good old northeast section that we love so much. Dr. Frederick D. Brewster, of Scranton.

(Seconded).

THE PRESIDENT: Any other nominations?

(Closed, on motion).

THE PRESIDENT: Second Vice-President. Second Vice-President. Please nominate some one who will work. Don't put the duty on Dr. Stewart that you have put on me this year. Put some one in that will be present at the meetings and relieve him occasionally.

DR. BERNSTEIN: I take a great deal of pleasure in nominating one on whom I feel we should confer an honor, one who has been very active in entertaining the Society at this time within this gracious city in which we are now being entertained; and I feel that we should bestow an honor upon one in appreciation of this loyal hospitality; and I nominate no one else than Dr. E. C. Blackburn for Second Vice-President of this Association.

(On motion, nominations closed).

THE PRESIDENT: Recording Secretary.

DR. J. M. HEIMBACH: Mr. Chairman, I nominate the old standby, Dr. Pond.

(Seconded, and on motion nominations closed).

THE PRESIDENT: The other secretary is Corresponding Secretary. Nominations for Corresponding Secretary.

DR. BERNSTEIN: I move you, Mr. President, that the same official be retained in that capacity, in reward for his good work.

THE PRESIDENT: It has been moved and seconded that the nominations for Corresponding Secretary close.

(Carried).

THE PRESIDENT: Treasurer. Nominations for Treasurer.

THE PRESIDENT: Dr. Goff nominated and nominations closed. Neurologist.

SECRETARY POND: I would nominate our old standby, Dr. Baker.

THE PRESIDENT: Dr. Baker has been nominated. Any other nominations?

(Closed, on motion).

THE PRESIDENT: One member of the Board of Censors.

THE PRESIDENT: Dr. Edmundson, of Pittsburgh, has been nominated.

(On motion, nominations closed).

THE PRESIDENT: Three trustees.

SECRETARY GRAMM: I nominate Dr. Stewart.

SECRETARY POND: I nominate Dr. G. J. Palen.

A MEMBER: Dr. E. R. Gregg, of Pittsburgh.

SECRETARY GRAMM: Margaret M. Schantz is nominated.

THE PRESIDENT: Any further nominees for Trustees?

SECRETARY GRAMM: I move the nominations close.

THE TREASURER: I nominate Dr. Anna Varner.

SECRETARY GRAMM: I repeat my motion that the nominations close.

THE PRESIDENT: It has been moved and seconded that the nominations for Trustees close. There are six nominees.

THE PRESIDENT: All those in favor of closing the nominations for the Board of Trustees, give their assent by saying Aye; contrary minded, No. So ordered.

Election at 11 o'clock to-morrow morning.

REPORT OF THE COMMITTEE ON JOURNAL.

DR. WARE, Chairman.

DR. WARE: Your committee has made a very exhaustive examination of the proposition of Dr. Bartlett presented regarding *The Hahnemannian*; and he will present this. The committee decided to report favorably; and Dr. Bartlett will present the contract if he is willing.

DR. BARTLETT: Mr. President, Ladies and Gentlemen: These are the rough terms, or rough drafts, of the different data to be incorporated into a working agreement or contract between the Homœopathic Medical Society of the State of

Pennsylvania, and *The Hahnemannian Monthly*, Incorporated. Society to be charged \$2.00 for members paid up; *The Hahnemannian* to be sent to all members carried on the rolls of the Society. Society to take in the subscribers of *The Hahnemannian* not members subject to the Board of Censors' rulings. Retroactive to date—by which is meant that none of these men could be elected until next year, but after they are elected the Society will get the advantages of their election from date. Sample the entire State once a year. *The Hahnemannian* to publish all proceedings in the journal proper; that is to say, not in the news pages, but in the journal proper. *The Hahnemannian* to turn all Pennsylvania subscribers over to the Society. W. F. Bartlett, that is my father, who is now 79 years of age, and has been Advertising Manager of the journal for twenty years, to be continued as Advertising Manager at 30 per cent. commission on cash basis. That means, he gets 30 per cent. only on such advertisements when paid for. If an advertiser goes into bankruptcy, he does not get any commission. G. Harlan Wells to be editor, subject after two years to the approval of the Trustees. Dr. Bartlett to retire absolutely in all capacities now, excepting when asked for advice, which he will give cheerfully. The editor to receive \$600.00, if profits permit; terms profits to mean cash in bank on December 31st each year, with all debts paid. The Society, or members, to buy journal for \$1500.00 or stock at par, ten dollars per share. Trustees *always* hold stock in escrow—which means that any stock purchased by any member or the stock owned by Van Lennep, Van Baun and Bartlett, cannot be sold without the consent of the Board of Trustees. This is absolutely essential, and is the keystone to the whole agreement; because it is our desire to have one item that we stand immovable on—that we will part with no stock unless the Trustees hold it in escrow; otherwise some advertising concern can come along and say we will pay ten dollars per share to me, and then they own this Society's bulletin or official organ; and it might be some contemptible advertising concern that does it and where are we? Then the Society, having had a reputable journal, must establish a new one, and is in trouble. Illustrations free, but must be line drawings, or half-tones. In other words, we won't go to the expense of colored pictures, which cost in the neighborhood of one to five hundred dollars for

plates. Opportunities to present monthly notices to the profession. One advertising page to be devoted to committees and their advances. Legislation to be in co-operation with Legislative Committee. Desire of owners that *The Hahnemannian* shall be passed into the hands of members of strong professional standing. That this contract will continue from year to year. It may be annulled at any annual meeting of the Trustees, or of the Society, or at the request of the Trustees. Society to report quarterly financially; all matters not covered by these terms subject to action of Trustees.

DR. WARE: Mr. President, this is the report of the committee, and the committee have gone carefully over this and move its adoption—I move its adoption.

THE PRESIDENT: It has been moved and seconded that this report of the Journal Committee be adopted. Are there any remarks?

All those in favor of the adoption of the report of this committee give their assent by saying Aye. Contrary minded, No. The motion is carried.

Any further business?

DR. MADDUX: Do I understand that that expresses the final disposition of it, as far as the Society goes, and is the instruction which the Society gives to the Trustees? Of course, it must be made formal, to be an action of the Board of Trustees.

THE PRESIDENT: Yes.

DR. WARE: I believe that all action must be taken as final by the Trustees. This is the sentiment of the meeting. I think the final action must be taken by the Trustees.

THE PRESIDENT: The report of the committee, as I take it, is adopted by the Society; the recommendation is accepted, and the Trustees are ordered—

DR. WARE: They have the opportunity to finally accept or reject it.

THE PRESIDENT: All matters subject to the action of the Board of Trustees.

DR. WARE: Yes, that is as I understand it.

THE PRESIDENT: So that the Society instructs the Board of Trustees to make the deal if it is considered feasible for the Society.

DR. MADDUX: May I summarize one of the advantages

that was considered? It simply gives those who have been members of the Society and subscribers to *The Hahnemannian* both for the same price. It enables us to appeal to the profession of getting something for nothing; and we hope the principal thing that guided us in recommending it is that it would have the effect of increasing the membership of our Society.

THE TREASURER: Are we still to get *The Hahnemannian*?

THE PRESIDENT: You get *The Hahnemannian*, just as the American Institute's Journal is issued in lieu of the transactions.

DR. BERNSTEIN: If I understand it correctly, the thing to do to wind this affair up and bring it directly to a vote, is the question whether this Society should direct the Board of Trustees as to whether they should accept the proposition or whether they should not. Is that the idea?

THE PRESIDENT: Yes.

DR. BERNSTEIN: Therefore, I make a motion (to bring it before the assembly) that the Board of directors be directed to accept the proposition. That brings it before the Society.

(Seconded).

THE PRESIDENT: It has been moved and seconded that the Board of Trustees be directed to—what was the wording of it?

SECRETARY POND: "Accept the proposition."

THE PRESIDENT: Accept the proposition. All those in favor—any remarks on that motion?

DR. JOHNSON: I don't know as we fully understand the proposition. No doubt it has been stated sufficiently clear; but the thing is somewhat new to our minds. And it might be, if Dr. Bernstein had worded his motion a little differently, I could vote for it. If he would say, they be empowered to do it, instead of directed. It might be that further consideration of the matter might prove it not to be desirable.

DR. MADDUX: They are empowered without any motion.

DR. BERNSTEIN: I will accept that suggestion.

DR. MADDUX: They are empowered, by virtue of their office, by virtue of the terms of the charter of this Society, to take such action; but the Trustees desire an expression of opinion from the members. The power exists without any special motion, as I understand it.

DR. BERNSTEIN: The doctor suggested the word recommend—that we recommend the Board of Trustees.

THE PRESIDENT: Are you ready for the question?

(Calls for question).

THE PRESIDENT: Dr. Bernstein, you accept the suggestion to use the word recommend?

DR. BERNSTEIN: Yes.

THE PRESIDENT: The Secretary will read that motion.

SECRETARY POND: (Reads under his voice to the President).

THE PRESIDENT: It has been moved that the Society recommend to the Board of Trustees that they accept the offer of *The Hahnemannian Monthly*; all those in favor of that motion give their assent by saying Aye. Contrary minded, if any, No. It is so ordered.

Is there any further business on this subject of journal proposition; if not, Doctor, you can call your next paper.

RHEUMATISM AND APIS.—Maberly, in the *Lancet*, gives several instances of remarkable relief following a course of treatment by bee stings in case of seemingly hopeless rheumatism. One patient who had developed a chronic rheumatic arthritis which had resisted almost all known remedies—baths, electricity, massage, and the usual drugs and diets—hobbled into the room with the greatest difficulty, doubled up until he was 5 inches less than his usual height. He was given 18 stings weekly, until in two months, he was able to stand two inches higher, could hold his head up and open his mouth fully, and the pains in the joints had almost disappeared. In another case the patient had been laid up three times with rheumatic fever for six or seven months at a time and his joints were increasingly stiff after each attack. After a course of bee stings, he was able to walk 20 miles every Sunday, found his ankle movements perfect, and was able to eat and drink what he liked. A number of other cases are cited and the writer concludes from them, that the remedy, if it does not effect a cure, gives relief in almost hopeless cases. In elderly people it is better to start with six stings, for the first three applications, when they may be gradually increased even up to a couple of dozen. Sickness often supervenes if too many are put on at first. There is a little difficulty in putting them on, but the author asserts that he has perfected a pair of forceps which, while preventing injury to the bees, holds them firmly. The stings should remain in for a few minutes before removing them. In old-standing cases the treatment will have to be continued for many months.

EDITORIAL

THE BEDFORD SPRINGS MEETING.

THE recent meeting of The Homœopathic Medical Society of the State of Pennsylvania, at Bedford Springs, was notable for the fact of enthusiastic expressions of delight, of those present, at the selection of the place of meeting. It was an innovation for our Society to meet outside of some large city, or without being to a certain degree the guest of the local community in which the meeting was held.

The advantages of meeting in some place like Bedford Springs were so apparent, that it is not unlikely that the selection of some popular, instead of some populous place will be made for many future meetings.

The social features of the meeting were well looked after by efficient committees from the Allegheny County Homœopathic Medical Society: Dr. G. B. Moreland, being chairman of the general committee of arrangements, and Dr. E. P. Clark chairman of the committee on entertainment. That they attended to their duties most efficiently is gladly attested by those who had the privilege of enjoying their hospitality.

The meeting was notable for the number of ladies in attendance; not for many years has a meeting been graced by so large a number of the fair sex; and many expressed themselves as enjoying the meeting more than any other they had ever attended; this being but natural when we recognize the beautiful natural surroundings of the place of meeting, and the further fact that all those in attendance being housed under one roof encouraged a better acquaintance than the former method did.

The scientific program, which was sufficient to take up the allotted time, embraced many interesting and helpful papers, as those who were present can testify.

Considerable time of the business portion of the session was consumed in the details of re-adjusting matters to conform with the new method of publishing the transactions. No marked dissent was evinced at the change inaugurated

at the previous meeting, of publishing the transactions in the *Hahnemannian Monthly*, instead of the book form.

The proposed alterations of the by-laws deal with the elimination of the office of corresponding secretary, an office and an expense not rendered necessary under the new method of publication.

Those elected to office were all well-known to the profession, and have been identified with the active work of the Society. The following officers were elected:

President, Gilbert J. Palen, M. D., Philadelphia.

First Vice-President, H. S. Nicholson, M. D., Pittsburg

Second Vice-President, R. L. Piper, M. D., Tyrone.

Recording Secretary, E. H. Pond, M. D., Pittsburg.

Corresponding Secretary, H. S. Weaver, M. D., Philadelphia.

Treasurer, Ella D. Goff, M. D., Pittsburg.

Censor, Theodore J. Gramm, M. D., Philadelphia.

Trustees, H. M. Bunting, M. D., Norristown; W. A. Seibert, M. D., Easton; A. P. Bowie, M. D., Uniontown.

President Wm. Alvah Stewart proved himself an admirable man for the office, and was alert, dignified and eminently fair.

Dr. Gilbert J. Palen, the president-elect, is well and favorably known to the entire profession, and enters upon the duties of his office with the dominant thought of what is best for the interests of the entire profession, and we bespeak for him the most cordial co-operation and support of all those who are interested in advancing the interest of Homœopathy in this State.—D. P. M.

THE TREATMENT OF DIABETES.

PROBABLY no disease has been the subject of closer observation by modern clinicians and physiological chemists than diabetes mellitus. The result of all of this study has been that the treatment of diabetes, while by no means as effective as we would desire, is greatly improved over the methods employed a decade or more ago.

It is interesting to note that many of the recently suggested methods of curing the disease by medicinal and other substances have been quite disappointing; thus the administration

of an extract of the islands of Langerhans, the use of secretin to stimulate pancreatic activity, and the transplantation of pancreatic tissues in the diabetic subject have all failed to produce satisfactory results.

The iodide of calcium, recently suggested by H. E. Smith, is said to have exerted a beneficial influence in a number of cases; but the statistics are so inaccurate that it is impossible to form any final conclusion as to its value.

The dietetic treatment for this disease, which for many years has been recognized as a most important matter, is based largely upon the studies of von Noorden. Generally speaking, it has been found that high feeding is injurious; and particularly in severe cases the minimum amount that will maintain the body weight usually gives the best results. In mild cases the sugar should be eliminated from the urine by the use of the von Noorden test diet, and the toleration for carbohydrates determined. A mixed diet should then be advised, restricting the amount of carbohydrates to such a degree that sugar does not appear in the urine. About once every three months the patient should be put on a diet entirely free from carbohydrates for a period of one to two weeks.

It is remarkable to note the difference in the toleration of patients for the various forms of starch. For example, a patient may excrete no sugar whatever after taking two ounces of potato or oat-meal starch, and yet show a marked sugar excretion after the administration of an equal amount of wheat starch. In other cases the reverse is true. It is important, therefore, in obstinate cases to determine which form of starch is best tolerated by the patient. In the majority of cases oat-meal has been found to be more readily assimilated than the other forms of carbohydrates.

The use of the Soy bean in the dietetic treatment of diabetes has been highly recommended by Friedenwald and Ruhrah. This bean was introduced by the Department of Agriculture from Asia and contains a large proportion of proteid and fat, with a very small proportion of starch. It is prepared for use in the form of a vegetable, or as a gruel, or as an addition to broths.

While modern investigations have done much to elucidate the nature of diabetes mellitus, and placed the dietetic and hygienic treatment on a more rational basis, it is remarkable to note that so far these investigations have added nothing to our

knowledge of the treatment of this disease by medicinal agents. Morphine and codeine, so universally relied upon by the "old" school, have proven to be entirely useless and usually detrimental to the patient. The homœopathic prescriber may well be content to stick strictly to the symptomatically indicated remedy and feel assured that in so doing he is giving his patient the advantage of the very best medicinal treatment now known for the management of this disease.

G. H. W.

BURSITIS ABOUT THE KNEE.—Simple synovitis of the knee, bursitis of the prepatellar sac, and teno synovitis, or of a bursa underlying a tendon, are essentially the same disease. In all there is distention by hypersecretion, due to subacute inflammation, the result, it may be, of overuse or strain; again, all may also be the seat of septic infection through the blood or from without, and the effect is the same pathologically in all. But it has taken us a little longer to realize that just as we find gouty, tuberculous, gonorrheal and so-called pyemic affections of joints, so we may meet with the same in separate bursal structures or tendon sheaths, while the joints remain unaffected. This will sometimes explain the presence in certain obscure toxic blood conditions of painful spots or swellings in situations out of the line of the more commonly named bursae and sheaths, but in which we know that smaller or larger bursae do exist which otherwise rarely attract attention.—Arthur E. Barker in the *British Medical Journal*.

RECURRENCE OF ADENOIDS.—Dr. R. Imhofer, Prag. (*Zeitschrift fuer Laryngologie*, etc., Band 3, Heft 6, 1911) states that there is more recurrence after removal of the adenoids than is generally believed and advocates the publication of reliable clinical statistics. The real recurrence of adenoids is caused neither by an imperfect operation nor by any special adenoid pathology, but is due solely to the constitutional condition of the patient. The most important factor is the presence of scrofula, by which there is brought about a recurrence of the growth in every case operated upon. It is, therefore, of great importance to examine every patient for scrofula and treat him for this disease, rather than to submit him to an unnecessary operation, the result of which will always be a bad one on account of the tendency to hyperplasia if adenoid tissue is met with in these cases. Only where the symptoms are very grave, such as great interference with breathing, recurrent ear catarrhs, stubborn conjunctivitis, etc., so that even a temporary improvement might be desirable, the adenoids should be removed, and then the treatment of the scrofula will be more effective.

In the so-called "Pseudo-recurrence" there is no return of the adenoid tissue, but still the adenoid symptoms, such as mouth breathing, recurrent catarrhs, etc., are present as before the operation; in this class of cases scrofula must also be considered as the underlying condition.—*Med. Review of Reviews*.

GLEANINGS

THE TREATMENT OF MORPHINISM.—P. Schroeder (*Berl. klin. Woch.*, February 13, 1911), finds that just as the physician used to fear the onset of disastrous symptoms when an alcoholic was treated without any alcohol, the majority of physicians are afraid to withdraw morphine suddenly lest "abstinence" symptoms develop. He shows that this doctrine is taught in text-books and monographs, even by such authorities as Erlenmeyer, Kraepelin and others. The symptoms which are most dreaded are attacks of cardiac weakness, severe attacks of excitement or mania (the delirium of morphine), collapse, irregularity of the pulse, sleeplessness, diarrhea, vomiting, etc. Schroeder states that this fear is unfounded. During the past few years no morphine has been given to the majority of the morphinists admitted into the Breslau psychiatric clinic. A few patients, it is true, were given small doses soon after admission. He gives the details of a number of cases, from which it appears that no signs of serious disturbance due to the sudden withdrawal of the drug arose. In no case did he experience even a temporary delirium or collapse, and in many of the patients the quantity of morphine taken right up to the time of admission was very considerable. He found that a sense of discomfort, sleeplessness, shivering, and occasional vomiting, which were produced by the withdrawal, only lasted for from three to five days on the average, and that these symptoms were never severe. In those cases in which a congenital degeneration of the nervous system existed, the signs of an associated degenerated character became apparent during the period of withdrawal. As a rule, the patient put on weight during the first week. It is frequently urged that it is immaterial to the result of the treatment whether the withdrawal is completed slowly or rapidly. Against this, Schroeder finds that the patient, his relatives, and his doctor appear to be content to postpone any such treatment until numerous abscesses, cachexia, the occurrence of attacks of excitation, or other complications renders it absolutely imperative, and then the chances of success are far less good than before. He claims that his records prove that the onset of severe and threatening symptoms due to the sudden withdrawal of morphine is imaginary. The most important therapeutic measures must be directed to the condition of the heart and to the general conditions. Small doses of other hypnotics act well during the first few days. He further finds it valuable to impress on his patients, who can usually be made to believe it, that the treatment is not dangerous and that no morphine can be allowed in future under any circumstances. Their pains and other symptoms are usually no longer present

by the time they have got back enough energy to take matters into their own hands, and the desire for morphine, as a rule, has disappeared for a time. They must, however, be kept under continuous supervision.—*Brit. Med. Journ.*

TREATMENT OF HEMOPTYSIS IN PHTHISIS.—A. Heisler and E. Tomor, former assistants at the Consumption Sanatorium at Belsig, sketch the various methods of treating hemoptysis, which they found useful in cases of phthisis (*Münch. med. Woch.*). The principle which should govern the treatment is that which governs the treatment of all forms of bleeding; but, inasmuch as it is not possible to look for the bleeding vessel and tie it in cases of hemoptysis, only the indirect methods are available. The first point mentioned is securing rest for the bleeding organ. This is only possible within narrow limits. They advise a half-sitting position, the patient being kept in bed, and consider that it is of paramount importance to attempt to reassure the patient and generally to allay the fear which nearly always accompanies a hemorrhage from the lung. Speaking must be absolutely forbidden, a fluid diet should be ordered, and the fluids should be lukewarm; saline purgatives should be prescribed for the double purpose of decreasing the blood pressure in the pulmonary circulation and of preventing increased abdominal pressure in the passing of a motion. They point out that, since narcotics may be required and since the patient may be rendered very anemic by repeated bleedings, the nursing should be conducted with great care and a catheter should be passed if the bladder does not empty itself regularly. Passing on to the special means of treatment, they first speak of medicaments. Narcotics are the most important. They prefer morphine combined with atropine injected subcutaneously. Morphine and scopolamine also act well; this combination may be preferred to the former, since the atropine at times excites at first. Codeine, etc., may be alternated with the morphine. They have used amyl nitrate in view of the beneficial action reported by F. Hare, and have obtained very good results. Gelatine and calcium chloride may be used to increase the coagulability of the blood. C. d. Velden has recommended 10 per cent. solutions of sodium chloride (3 to 5 c. cm.) injected intravenously for the same purpose. It has long been known that heterogeneous serum increases the coagulability of the blood, but the authors, while recording the possible benefits of this form of treatment, warn the physician to be careful lest hypersensibility and its attendant dangers are induced. They consider that ergotin, adrenalin, and the like should never be used for hemoptysis. Among the physical methods of treatment, they mention ice applications in the form of an ice bag, and ice pills, but prefer the former. Warmth applied to the extremities and abdomen, and even electric light baths do good by diverting the mass of blood from the pulmonary vessels. Niedner's strapping is recommended for fixing the apex from which the hemorrhage is proceeding. Lastly, they deal with operative means. Resection of the first rib with compression of the apex has been suggested, but the results obtained so far do not justify them in recommending this procedure. Artificial pneumothorax on the other hand may be very useful, provided that the pleural cavity is free from adhesions.

Blood letting may be advisable in desperate cases. The authors point out that Möller only experienced one single case of death from acute hemorrhage in phthisis during the fifteen years of his sanatorium practice. Death from suffocation is far more common, and it is, therefore necessary to remove blood clots from the pharynx, etc., and to give expectorants. If intravenous infusion of saline fluid is practiced at all, great care should be exercised that the hemorrhage is not again started.—*Brit. Med. Journ.*

THE TREATMENT OF ASPHYXIA NEONATORUM.—F. Ahlfeld (*Zeitschrift f. Geburtshilfe u. Gynaekologie*, Vol. 68, No. 1, page 131), takes issue with Schultze as to the indications for the latter's method of resuscitation. Schultze himself recommended it in all cases of asphyxia pallida with relaxation of the muscles, making the condition, that it must be done immediately after birth.

Ahlfeld does not believe that the use of this mode of resuscitation should depend upon the fact that the case is one of asphyxia pallida. He holds, that, if a child when born shows that it requires resuscitation of some sort, the cord should be immediately tied off, the air passages cleared, and the baby put into a hot bath for observation. After having ascertained the baby's condition the proper treatment can be resorted to. In other words, he objects to the immediate Schultze's Swingings before the child has been carefully examined, as some conditions might contra-indicate the swingings, even though asphyxia pallida be present.

He admits the difficulty at times of arriving at a conclusion regarding the child's real condition, warning us to keep in mind the foetal heart before delivery, the presentation, the size of the pelvis, and the character of a delivery (difficult forceps, etc.) in forming a conclusion. He does not depreciate Schultze's method, but admits that it always fills the lungs with air, even those of dead children, and often increases the frequency of the heart beat. He believes it to be contra-indicated in premature children, in injured children with cranial depression, after difficult forceps when one is justified in suspecting cerebral hemorrhage. Even when indicated, he emphasizes that Schultze's method is not easily carried out, there always being a tendency to be too energetic and unless done properly there is always the danger of hemorrhage into one of the viscera. Then too, there is always considerable loss of body heat, to say nothing of the possible accidents in crowded rooms and rooms with low ceilings. *Med. Rev. of Rev.*

SALVARSAN "DON'T'S":—1. Don't use salvarsan in mild carditis, advanced tabes and paresis, syphilis of nervous centers, in grave kidney disease, in cachexia or marked debility, unless due to syphilis, in aneurism, optic neuritis or in persons with lesions (such as gastric ulcer) where increased blood pressure may produce hemorrhage. 2. Don't use intravenous injections of salvarsan until you have fully qualified yourself to do so. 3. In the preparation for the intravenous injections do not use common salt solution or undistilled water, but have all materials chemically pure and sterile; otherwise you may not have a clear solution. 4. Don't under any circumstances inject a solution which is not perfectly

clear. 5. Don't use a solution any more alkaline than is absolutely necessary to secure a clear solution. 6. Don't inject the salvarsan into the vein without previously running in physiologic salt solution. If the needle is not in the vein you will infiltrate the surrounding tissues and cause unnecessary pain and inflammation. 7. Don't infuse the solution into the vein too rapidly. It is best to have a needle of such capacity as will take eight minutes to introduce 200 c.c. of fluid. With the gravity apparatus the rapidity of inflow can be readily governed. 8. Don't infuse a cold solution, but use one about blood heat. 9. Don't use glass pearls in the mixing jar, as small parts may chip off and cause embolism. 10. Don't use a routine dosage of the drug, but gauge it according to the weight of the patient and the condition to be treated. 11. Don't employ intravenous injection in your office or in dispensary. The patient should be in bed in the hospital and be carefully observed for not less than three days. 12. Don't persist in intravenous injection if the patient shows signs of collapse during administration, but stop at once.—Schamberg, in the *Journ. A. M. A.*

HINTS FOR THE GENERAL PRACTITIONER ON THE EARLY DIAGNOSIS OF INSANITY.—C. F. Macdonald (*Medical Record*, January 7, 1911), remarks that the significant diagnostic factor to be sought for in the early stage of mental disease is evidence of a change in the mental characteristics of the individual. In fact, any prolonged change in the mental or moral tone of an individual should at once excite suspicion of approaching insanity, especially if he be descended from insane or neurotic stock.

Prominent among the premonitory symptoms of insanity are disturbances of the bodily functions, morbid emotional manifestations and alterations in the mental characteristics of the individual. Somatic functional disturbances express themselves in various ways, such as pavor nocturnus, insomnia, headache, tinnitus, vertigo, fibrillary tremors, clammy extremities, and other vasomotor disturbances; anorexia, indigestion, constipation, etc. It should be said in passing that while these phenomena, especially insomnia and constipation, are frequently observed in the prodromal stage, they may, one or all, occur in persons who never become insane; hence, they are not to be regarded as pathognomonic, nor singly, perhaps, as even diagnostic signs of mental disease.

If the tendency is to mental exaltation, or mania, the emotional changes usually take the form of unnatural buoyancy, loquacity, undue levity, and morbidly quickened mental operations, the patient frequently appearing to be unnaturally bright. If the tendency is to mental depression, or melancholia, there are gloomy forebodings, morbid introspection, hyper-conscientiousness, senseless, self-condemnation, a morbid aversion to friends, morbid suspiciousness, irritability, and frequently a vague sense of impending evil of some kind. Marked alterations of character are seldom wanting in this stage of the disease. Thus, for instance, the devout person may become profane; the refined, immodest and disregardful of the proprieties and decencies of life; the staid individual becomes capricious and vacillating; the sociable, unsociable; the good-tempered, irascible; the industrious, indolent; the temperate, intemperate; the cheerful, sullen and morose, and the level-headed, conservative business man

embarks in senseless enterprises. These symptoms being in striking contrast to the individual's normal mental status, are indicative of a departure therefrom, and when observed they should always excite suspicion of impending insanity; and while they may vary as regards number, order of occurrence, and intensity, their presence is always significant as danger signals, especially when they occur in persons who are predisposed to mental disease by reason of inheritance, neurotic diathesis, previous attacks of insanity, head injury, alcoholism, drug addiction, syphilis, mental shock, prolonged mental strain and worry, general ill health, etc.

In connection with the subject of the diagnosis of insanity, it should be borne in mind, as already intimated, that the range of normal mental action is by no means a narrow one. It is only when the physiological limitation is passed and the individual enters into a pathological state, mentally, that we may consider him insane. In other words, whenever an individual is found to have undergone a prolonged departure from his normal mental state and the departure is unexplainable on any other grounds, such as drunkenness, delirium, the effects of narcotic drugs or other toxic agencies, a diagnosis of insanity will usually be warranted. Alcoholic intoxication and delirium tremens do not constitute insanity in a medical sense, although the law recognizes the latter as an excuse for crime, and some writers have classed it among the toxic insanities.

It should also be borne in mind, in the diagnosis of insanity, that the patient's statements regarding himself are often unreliable and misleading, owing to delusional ideas or misinterpretation of what actually took place, even though in other respects he may be perfectly truthful. Again, the truth or falsity of certain statements made by the insane can only be determined by evidence from other sources; as by so doing we may avoid the humiliating predicament through certifying that an allegation of pregnancy made by a young woman was an insane delusion, when she was in fact pregnant, as an examination would have disclosed.

On the other hand, many of the delusions and hallucinations expressed by the insane are so manifestly irrational as to need no further corroboration. Again, we occasionally meet insane persons who are capable of concealing their delusions for a time, realizing that the exhibition of them may result in their being declared insane and deprived of liberty and the control of their affairs. It is rare to find a case of insanity proper that did not at some stage of its progress reveal the presence of delusion or a delusional state, as evinced by the declarations, manner, or conduct of the individual. It need scarcely be said that the most common delusion among the insane is that they are not insane.

In the diagnosis of insanity it is important to take into account certain negative symptoms, as reticence, obstinacy, sullenness, or stupidity, any of which may be significant with reference to diagnosis, especially if such condition is not natural to the individual. Note should be taken also of the facial expression; the contrast in facial expression in mania and melancholia is in itself a lesson in diagnosis, the expression of the eyes and their pupillary reactions to light and accommodation, the speech, writings, motor functions, reflexes, etc., any of which may in themselves be indicative of certain forms of mental disease. The pulse and temperature should also be observed, as persons laboring under the delirium of

fever, meningitis, etc., have occasionally been committed to institutions for the insane through inattention to these points.

Other conditions which have been mistaken for insanity are prolonged intoxication, delirium tremens, hysteria, and cerebral meningitis.—*Med. Rev. of Revs.*

CEREOISINE IN BLACK EYE AND OCULAR THERAPEUTICS.—Desiccated brewer's yeast was suggested some years ago in the treatment of ophthalmia neonatorum and gonorrheal ophthalmia, and it has been successfully employed in many such cases since then. It is claimed to destroy gonococci infection of the conjunctiva more certainly than the silver preparations, arrests corneal ulceration, induces the chemosis with remarkable rapidity and accomplishes these results without causing severe reaction. Irrigate the eye and conjunctival folds with a warm solution of boric acid, then apply a mixture of cereoisine and sterilized distilled water of the consistency of cream, which should be applied to the conjunctival folds by an applicator or pipette and renewed every hour in ophthalmia, and every two or three hours in corneal ulcer, unless perforation of the cornea is threatened, which indicates more frequent applications. The following is the formula recommended for preparing the cereoisine mixture for the eye:

R cereoisineGrs. V.
Aqua 3i

Let stand for five minutes, then stir, and a smooth mixture results. If stirred immediately after adding the water to the cereoisine, the granules agglutinate, and an unsatisfactory mixture results.

The same mixture may be used as an application for black eye and other ecchymosed conditions. Apply the mixture around the orbits or to the site of the lesion and allow to dry. The tumescence and discoloration rapidly subsides under this treatment. In eczema of the eyelids apply the same mixture several times a day. This application also forms an effective prophylactic for the newly born, preferable to the nitrate of silver solution generally employed. It destroys gonorrheal infection of the conjunctiva as effectually as the silver salt, without causing pain. In such cases it should be freely applied to the conjunctival surface after irrigation with a weak solution of boric acid.—*Jour. Ophthal. Otol. and Laryngol.*

WILLIAM SPENCER, M. D.

UNILATERAL RETINITIS PIGMENTOSA.—The author stated that in a typical case of retinitis pigmentosa the symptoms are so characteristic that a diagnosis is made without difficulty. First of these is night blindness, in which the patient sees quite well in the daytime, but very poorly at night. This is accounted for by a marked concentric contraction of the field of vision, which slowly creeps towards the macula region, so that in time the patient, while having fair central vision, is unable to move about alone. When an ophthalmoscopic examination of the fundus is made these subjective symptoms are found to be due to a slowly progressive degeneration of the retina. We find at the periphery of the fundus characteris-

tic patches of black pigment arranged in the form of bone corpuscles or teased out moss. They are found especially along the course of the blood vessels and in places lie on top of them. In course of time the pigmentation slowly advances toward the center, associated with the pigment changes are atrophy of the retina and optic nerves and very marked contraction of retinal vessels. The disease affects both eyes, is probably congenital, and often inherited. One-third of the cases occur as a result of the consanguinity of the parents. While the above symptoms describe the ordinary form of the disease, there are typical cases in which all the symptoms mentioned are absent except the patches of pigment. The case presented is unusual in that it has but two or three typical patches of pigment and is further remarkable in that only one eye is involved. The patient, aged 35, consulted on account of fatigue after reading or sewing. She appeared to be in perfect physical condition and had always enjoyed good health. The family history was good and her parents are not related. She has three brothers, all seemingly with normal sight.

The patient's vision was as follows: Right eye 5-15, with -0.75 oph. = 5-9. Left eye, 5-5, with $+0.25$ oph. = $+0.25$ cyl. ax. 90 degrees = 5-5.

While testing her vision the patient said, "Don't bother with the right eye, the vision has always been poor, in fact, the eye is practically blind unless I look directly at an object." The field of vision was then examined and the right eye was found to be contracted to within eight degrees of the fixation point, while the field of the left eye was absolutely normal. Ophthalmoscopic examination of the right eye showed that the optic nerve was pale and waxy looking, the arteries and veins of the retina were very much contracted and scarcely visible at the periphery. The eyeground had a washed-out look, and the choroidal vessels were clearly seen, but no patches of choroiditis noted. At the extreme periphery could be seen a few small specks of pigment, and on the nasal side two or three of them covered a retinal vessel. The fundus of the left eye was carefully examined, the optic nerve and retinal vessels were normal, no trace of pigmentary degeneration was found. In fact, the eye-ground was perfectly normal.—Dr. J. Ellis Jennings, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

COMPLETE SPONTANEOUS ABSORPTION OF THE LENS.—The case is that of a woman 70 years of age, in good health, who stated that she had cataract in the left eye fifteen years ago so advanced that she could not see to read with that eye. Four years ago the eye became very red and painful for about one week. She was treated by her family physician, and since then the eye has given no trouble. Vision in the right eye failed, and she then discovered she could see very well with the left. The right eye now had a well developed cataract. In the left eye the pupil is clear, iris tremulous, anterior chamber somewhat deeper than normal, with tension slightly plus. The Ophthalmoscope and focal light show aphakia, a delicate pupillary membrane, two minute chalky looking particles floating in the anterior portion of the vitreous, and a glaucomatous cupping of the disk two diopters in depth. The only evidence that a lens

ever existed is its capsule, no trace of even the nucleus being present unless the particles in the vitreous be remnants of it.

The field is about one-third the normal area, and vision with $+11.00$ sph. $=+50$ cyl. axis horizontal, is 20-75. The patient, and also her family, disclaim any operation or injury and there is no evidence of any in the cornea or sclera.

The author thinks there is a possibility that the severe inflammation of four years ago was due to rapid swelling of the lens, which produced a rupture in the capsule admitting the aqueous to the lens substance.

The rarity of the case is attested by the fact that this is the first case of the kind he has had during twenty-eight years of private and clinical practice.—Dr. A. E. Ewing, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

THE CURE OF EUTROPION BY EXTIRPATION OF THE TARSUS.—Following trachomatous inflammation, the affected spots of tarsal conjunctiva is transformed into scar tissue, contraction ensues, which, progressing causes a shortening and thickening of the tarsus. A forward displacement of the fornix occurs upon the tarsus and a contraction of the lid border downward, inward and backward, curling upon itself. The posterior portion of the lid, not the tarsus, becomes elevated; the concave surface towards the ball; the lid tissue adjacent to the scar tissue becomes stretched. This causes eversion of the tarsal glands and some of the tissues, trickiasis, etc.

In his clinic an attempt has been made to determine the value of each of the numerous operations for eutropion. It was concluded, after many trials, that the operation of anagnostakis, often known as Hotz's operation, held the greatest chance for permanent success. Since then, however, we have learned from Kuhnt that the tarsus may be extirpated without impairing the functions of the lid. It is obvious, then, that this is the best method of correcting eutropion. It became necessary to extirpate the entire tarsus and it was observed that the eutropion was cured simultaneously with the healing of the wound. In a large number of cases of eutropion the extirpation of the tarsus was followed by an immediate and permanent result. It was then concluded that only in mild cases of eutropion was the operation of anagnostakis indicated, but that all seven cases required extirpation of the tarsus; firstly, because of direct benefit upon eutropion, and secondly, because it had a most beneficial effect upon the complications of trachoma. The effect is not so marked in the first few weeks following the operation, but afterwards it becomes quite noticeable. Further, it appears that extirpation has the effect of widening the palpebral orifice. Before the operation, the thickened conjunctiva and the contracted fornix narrow the palpebral orifice, consequently lessening the movements of the globe.

After the operation these movements are more easily extended, hence the eye can be kept clean and clear because of the increased mobility of the eyeball. The objection to the operation is that of the unevenness of the conjunctiva the first few days following the operation, thus favoring the occurrence of a conjunctivitis or a Keratitis Superficialis. The complica-

tions were quite frequently observed in our first case, but later on as our technique improved, especially the suturing, these accidents became much less frequent. The predisposition of the conjunctiva to these complications is especially great during the process of healing, but after that is complete the tendency is diminished.—Dr. Straub, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

DETACHMENT OF THE RETINA OCCURRING THREE YEARS AFTER THE INJURY.—The case reported is that of a workman in copper who on the 18th of July, 1906, received an injury in right eye. Two hours afterwards he came for treatment. A piece of copper 1.5 cm long, 1 cm. broad and 1.5 cm thick was removed. The sharp edge of the splinter entered the ball to the nasal side, just above the horizontal line, 4 to 5 mm. from the limbus, the splinter was directed diagonally upward and backwards. Upon its removal an opening of about 5 mm. long was left. The choroid protruded through the wound, there was but little bleeding, the wound did not seem dangerous or serious. The wound was closed with two sutures.

Vision was normal. In the choroid there was a small white scar over which the retinal vessels passed unobstructed. The vitreous was clear and quite normal. Three weeks afterwards the patient reported and the conditions were identical with that of the last examination. He was not seen again until April 6, 1909, when he reported that for fourteen days the vision had been failing. A small detachment of the retina was visible at the side of the choroidal scar. Three weeks later the detachment was total. The point of interest was that although there was no injury to either retina or vitreous, yet as a result of the injury, after a lapse of three years, during which time there was normal vision, complete detachment of the retina should have occurred.—Dr. J. R. van Geuns, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

HEMORRHAGE DURING THE PUERPERIUM.—Kuster's studies of cases of hemorrhage occurring after the eighth day postpartum have shown that severe hemorrhage may take place during the puerperium without the retention of placental or membranous fragments, solely in consequence of the formation of thrombi. These thrombi are not distinguishable microscopically from placental or membranous remains. So that in every case where the subject is of importance a microscopic examination must be made. In order to prevent late postpartum hemorrhage it is necessary that women who have experienced any abnormality during the placental stage should be watched with especial care. . . .—*Zeitsch f. G. and G.*, Vol. 67, 430.

THEODORE J. GRAMM, M. D.

ETIOLOGY OF ECLAMPSIA.—Thies, of Bumm's Clinic, has made a contribution to the etiology of eclampsia in some studies on animals. He made intravenous injections of fetal serum into pregnant and non-pregnant rabbits. He found that the intravenous injections in pregnant rabbits caused symptoms which were pronounced on repeating the injections after several days. These symptoms were shown in various ways and

may increase to clonic and tonic symptoms and later cause death. In non-pregnant animals the first injection was mostly without result, but on repetition after eight days, similar symptoms were produced as in pregnant animals. It seems justifiable to apply these results to the human being because clinically several analogies appear which suggest the thought whether that which we now know as eclampsia is not an injury of the maternal organism from altered fetal albumin. Fetal albuminoid substances enter the maternal organism which must protect itself by the formation of antibodies, the fixing of the latter with the antigen (albumin) leads to the occurrence of anaphylaxis and its symptoms, to which eclampsia belongs.—*Arch. f. Gyn.*, Vol. 92, 573.

THEODORE J. GRAMM, M. D.

HEART DISEASE AND PREGNANCY.—Paschke summarizes his article by saying that he regards much more favorably than most authors the complication of heart disease in pregnancy. In fact, he believes that heart lesions are to be judged just as when pregnancy does not exist. Among 1,525 labors he encountered a mortality of only 0.32 per cent., so that the mortality recorded by other authors seems enormous, and may be explained by a too small number of cases having been observed, which happened to include many serious cases. It has also been said that premature delivery occurs in 20 per cent. of cases, while this author has found that fully seven-eighths of the cases go to full term. They found that ruptured compensation favors premature delivery. Artificial termination of pregnancy was necessary in only 1 per cent., and it was indicated by defective compensation. Pregnancy endangers life in but few cases of serious heart disease where the heart muscle is also involved and nephritis exists. The author has found that 98 per cent. of cases of pregnancy complicated by heart disease terminate favorably, even with slightly defective compensation. The danger of atony did not appear. It is, of course, necessary in all of these cases that the patient be carefully watched, especially during the period of expulsion, and no necessary obstetric intervention is contraindicated because of the heart lesion. Strict asepsis is called for in these cases, since puerperal infection is especially dangerous. Nursing of the child is not contraindicated.—*Arch. f. Gyn.*, Vol. 92, page 466.

THEODORE J. GRAMM, M. D.

THE BLOOD PLASMA IN RELATION TO ECLAMPSIA.—The theory of Dienst, proposed some years ago, regarding the origin of eclampsia is being subjected to careful critical analysis abroad, for as some think, if correct it fully explains the phenomena of eclampsia. Landsberg, working along these lines, has studied the contents in the blood plasma of total albumin, fibrinogen and fixed carbon dioxide in pregnancy and their relation to the kidney of pregnancy and eclampsia. The main results of his studies are: The total quantity of albumin in the pregnant and parturient is somewhat less than in the non-pregnant; in the new-born it is less than in the mothers. The amount of fibrin in the pregnant is somewhat greater than in the non-pregnant women, during labor still greater than in the pregnant, in the newborn less than in the non-pregnant. An increase in

the amount of fibrinogen in the eclamptic as compared with normal women in labor is not demonstrable. In the case of kidney of pregnancy examined, the amount of fibrinogen was not increased. On the other hand the amount of fixed carbon dioxide was greater. The leucocytes found in the circulation have nothing to do with the formation of fibrinogen. As the place of development of fibrinogen there come into consideration the liver on the one hand, and on the other the lymphoid organs, and especially the medulla of bones. It is questionable whether the leucocytes are much concerned in the formation of fibrin ferment. The assumption can probably be denied, that for the formation of fibrin ferment there is necessary a great destruction of leucocytes, especially of the polynuclears. On the contrary the view becomes more and more probable that blood plates have the greatest significance. Against the pre-eminent participation of the polynuclear leucocytes are the circumstances present in infectious diseases. Although these elements are here greatly diminished, it has been shown that there is a very considerable increase of the coagulability of the blood and of the existing amount of fibrin. Finally, the author concludes that the leucocytes are not to be regarded as the etiological cause of the kidney of pregnancy and of eclampsia, as Dienst has proposed. He also thinks we are not justified in drawing the conclusion from the thrombus producing action of injections of placenta, that fibrin ferment represents the essential factor in the development of eclampsia.—*Arch. f. Gyn.*, Vol. 92, 693.

THEODORE J. GRAMM, M. D.

PHLEGMASIA ALBA DOLENS.—Kromer's article treats the subject most comprehensively. His conclusions are that phlegmasia alba dolens is simply an accompanying symptom of disease of the veins which starts from the uterus. It depends upon a retrograde lymph stasis which arises as a perivenous reaction to a bacterial endophlebitis of the pelvic veins. The course of the process almost always includes venous thrombosis of the pelvic veins and those of the leg, and with this retrograde lymphatic stasis of the thigh there is associated a general static oedema of the entire lower extremity. The endophlebitis leading to the lymphatic stasis may exceptionally continue along with a pelvic phlegmon, and may arise from it. But in the further course the thrombosis extends only to the thigh. If an extending phlegmon is present with which the phlebitis is usually associated, then the purulent infiltration of the pelvic and crural connective tissue leads earlier to a fatal termination than an extensive swelling of the leg can form. Accordingly we must bear in mind the difference between the benign white swelling of the leg of the puerpera and malignant phlegmon. The endophlebitis accompanying purulent parametritis produces a certain train of symptoms in which besides the phlegmasia there are peritoneal symptoms, purulent ascending ureteritis and pyelitis.—*Arch. f. Gyn.*, Vol. 92, 537.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,
Miami, Florida.

MATERIA MEDICA KEYNOTES.

XXI.

By Frederick Kopp, Greenwich, N. S. W. *Kali Muriaticum* in *Epilepsy*.—*Kali Muriaticum* 3x administered four times a day for two months, then in the 6x potency three times a day for two months, then twice a day for another three months, is of priceless value in the treatment of epilepsy following scarlet fever. The above treatment was efficacious in the case of a little girl who, after scarlet fever, suffered for twelve months prior to the commencement of the treatment. The attacks came on every month, the fits being every two or three hours for twenty-four hours, when they would disappear until the following month.

Rhus toxicodendron and *Strychnia* in *Paralysis*.—*Strychnia* 6x is effectual in paralysis, in which the patient is unable to articulate, complete anesthesia of the whole of the *left* side, cannot use the *left* arm or leg, or any of the muscles of the *left* side of the body. *Rhus toxicodendron* 3x, administered three or four times a day for a fortnight, followed by *Strychnia* 6x every three hours, often cures in three or four months, especially if the *left* side is also massaged in conjunction with the internal treatment.

Natrum Sulphuricum in *Renal Calculi*.—This remedy given in the () or 1x dilution has a direct action, not only in correcting the tendency towards the forming of calculi deposits, but it also acts as a solvent. It is indicated when the deposits in the urine are of a red, *sandy* character. It is also useful in the hepatic disorders often found in connection with and arising from the above condition.

Stellaria Media in *Rheumatism*.—It is now over seventeen years ago since I first undertook the proving of the above drug, and it still continues, I am pleased to say, to bear out the claims I made for it in the treatment of rheumatism, especially in *chronic* cases, being indicated in both muscular and articular. It is now occupying a foremost position in our materia medica in the treatment of this hitherto obstinate and painful complaint, and is called for when the pains are of a sharp, shooting, cutting nature, *rapidly shifting from one spot to another*. It should be given internally in the 1x dilution, and a lotion or liniment made of the mother tincture externally.

Lactucarum in Diabetes Mellitis.—This has been a very successful remedy in the treatment of the above complaint, given in from five to ten drops of the tincture three or four times daily. It has the power of arresting the abnormal flow of the urine.

Ledum Palustre in hæmorrhage from the lungs—this is a valuable remedy in hæmorrhage from the lungs. It is indicated when there are frequent impulses of cough, the coughing bringing up large quantities of blood. It must be given in a *low* potency, from one to ten drops of the mother tincture for a dose, and acts well given with two-drop doses of *Aconitum napellus* 1x. A few doses of *Ledum palustre* should first be frequently given to abate the hæmorrhage, and the *Aconitum* afterwards administered alternately with the *Ledum* every two hours.

Passiflora Incarnata in Insomnia.—This remedy is indicated in typhoid fever, in which the following symptoms are prominent: *Great restlessness, sleeplessness, nervousness, and tossing*. It relieves in these cases the nervous tension, and induces sleep. In the sleeplessness after childbirth, accompanied with more or less nervous excitement, it is of the highest value. It is one of our most effectual remedies for after-pains. It should be used in doses ranging from five to ten minims of the mother tincture, given every three or four hours till the desired effect is obtained. A *suicidal tendency* is a further indication for its administration. It has also proved very effectual in the treatment of tetanic convulsions, especially in those affecting mainly the muscles of the trunk; in the tetanus infantum, accompanied with trismus, opisthotonos, and convulsions.—*June Hom. World*.

GRINDELIA ROBUSTA.—The physiological influence of the drug is exhibited on the heart; at first by a quickened pulse, subsequently by retarding it. It first elevates the blood pressure, but subsequently its action is retarding.

This drug in toxic doses—through the pneumogastric nerve—paralyzes the muscles of respiration and gives rise to the symptoms that have led to its successful use in asthma and some form of bronchitis.

The chief indication for its use in all respiratory troubles is that the patient cannot breathe when lying down, stops breathing when falling asleep, and wakes with a start and a gasp for breath.

The clinical observations of *grindelia robusta* are grouped about asthma and its allied conditions, in labored respiration, with dusky flushings of the face. I have seen it relieve Cheyne-Stokes respiration in a very short time.

In spasmodic asthma, pure and simple, it is of much benefit. There may be a hereditary tendency in a very few cases, but to my mind, the larger majority thus credited are due to neglect of catarrhal affections of the upper air passages in early life, producing pathologic hypertrophies of the turbinates, etc. Cases developing later in life are due, in a large measure, to imperfect metabolism, etc., being caused by faulty habits of life and the insufficient use of the lungs.

These conditions tend to bring about a condition of pulmonary emphysema and imperfect oxygenation that results in autointoxication and reveals itself in the asthma or asthmatic breathing.

In those affections of the air passages associated with asthma spasmodica, more frequent at night or on slight exertion, or with those common colds which take the form of asthma or dyspnœa that have a recurrence of symptoms as a condition, *grindelia robusta* will be found of extra value. The more the patient seems on the point of suffocating, the more painful and distressing the restlessness, the more wheezing and louder the respiration, the more appropriate will be found the *grindelia robusta*. After its use the recurrence of symptoms will assume a much milder form and be less frequent. Rose cold, hay fever, and autumnal catarrhal will also be benefitted by the use of this drug.

The remedy may be given in full and frequent doses; the effects are soon evident. It relieves the effort of breathing and produces expectoration, with usually audible coarse rales, and can be practically depended upon for results.

Bronchorrhœa, with tough, whitish mucous expectoration and difficult to detach, will be greatly helped by the drug under consideration.

Grindelia robusta will relieve the irregular heart action often accompanying chronic croup and affections associated with pulmonary wrongs. Heart and respiration alike are weak. This remedy will improve the strength and general character of both.

It has proved beneficial in shortness of breath attendant upon valvular disease, and in cardiac hypertrophy. The patient wakes suddenly with a sensation as if the respiration had ceased.

Grindelia robusta will relieve many times the nausea and retching of gastric ulcer, and conserve, in a measure, the prostration of this miserable condition.

In pertussis, with profuse mucous secretion and an explosive character of the cough, this remedy should not be forgotten. In chronic cough, following pneumonia, the drug has been used with good results.

As an application to the skin, when poisoned by rhus tox., this remedy is most valuable. It acts promptly and satisfactorily. It is also a most excellent dressing for burns and scalds when these are of a superficial nature. It is curative also in the bites of insects, quickly antidoting the poison. In many itching conditions of the skin, *grindelia robusta* will be found of service as a local application.

Grindelia robusta is of value in certain conditions of the eye. In conjunctivitis and purulent ophthalmia it has been found serviceable. Particularly in iritis is its power evidenced. It should be used both locally and internally.—*A. Waldo Forbush, M. D., Somerville, Mass.*

ZINC ARSENATE, 3X.—Chorea. For this condition of trophic disturbance of the blood and nervous tissues of the organism, this is a remedy of promise, combining, as it does, a specific influence over the destructive tendency in the one and the instability in the other. Conditions especially calling for its use are marked deterioration of the general health with anemia in children, especially in chlorotic and nervously overtaxed school girls. Exhaustion, profound on the slightest exertion, is a predominating characteristic. There is also a great depression of spirits and marked involvement of the lower extremities. It corrects the anemia and exerts a

tonic effect in restoring the exhausted nerve cells.—“The Rundschau,” *Pacific Coast Journal of Homeopathy*, April.

EUCALYPTUS tincture with equal parts of glycerine is an excellent topical agent to enlarged and ulcerated tonsils or inflamed throat. Its curative action is very prompt and efficient. As an application in metritis and endometritis it is equally meritorious.—DR. KETCHUM.

EUCALYPTUS is the remedy in bronchitis, where the cough is almost constant, with a free, watery expectoration; also in aphthous ulcers in the mouth and throats of children. When in the course of bronchitis the febrile elevation has fallen and the so-called catarrhal stage has been reached, eucalyptus positively diminishes the expectoration and renders it less purulent. This is especially true in the foetid form of bronchitis, in bronchial dilation and emphysema.—“The Rundschau,” *Pacific Coast Journal of Homeopathy*, April.

AMMONIUM BROMIDUM IN WHOOPING COUGH.—I have had practical experience with this remedy in whooping cough in the case of one of my children, an infant girl, barely three months old. The attack was a severe one, all the usual remedies failed to make an improvement, and it was looked upon almost as a hopeless case. As a last resource, ammonium bromidum was given in half-grain doses every four hours. The result was satisfactory beyond all expectations. The attacks soon became fewer and less severe, and the child recovered. The patient during the attacks turned black in the face, owing to the suspension of the breathing, there being a great danger of suffocation, and there was great exhaustion. The cough of ammonium bromidum is spasmodic and very severe and dry, without expectoration, and there is even developed a distinct whoop.—“The Rundschau,” *Pacific Coast Journal Homeopathy*, April.

LYCOPUS VIRGINICUS.—The pathology of Graves’s disease is not definitely understood. Although an excess of secretion from the thyroid gland from a primary disease of the gland itself seems to be a recent theory, yet inasmuch as the heart action is reduced by remedies and the general condition of the patient improves, the exophthalmos disappears and in the majority of cases the goiter as well—hence I can see no other cause than a neurosis of the vagus or a disturbance of its nucleus or ganglionic connections; and taking into consideration that the etiology of exophthalmic goiter is generally conceded to be due to a nervous strain, overwork, exhaustion, mental anxiety, worry, grief or fear, rather confirms this theory.

My theory is that with an increased heart action there is an increase in the blood pressure throughout the whole arterial system. The muscular coats of the arteries of the thyroid gland and those within the orbits become exhausted, causing a vascular thyroid enlargement and protrusion of the eyes. At these points the vessels are more superficially located than those of the neck and head and therefore sustain the least resistance. It is impossible for such to take place with the systemic or splanchnic vessels as they lie within looser tissues, and consequently are compensatory

to an increase of the heart's action, their dilatation is uniformly regular throughout, from which there are no ill effects.

It is through the influence on the vagus nerve, its center or connections, that *lycopus virginicus* and like remedies have their effect and cure, and from this point of view it can be readily understood that surgical interference with the gland will never effect a complete cure of exophthalmic goiter.

Of *lycopus virginicus* Refinesque says: "It is non-poisonous and quells inordinate motions of the blood current and is useful in hemoptysis and hemorrhoidal bleeding."

In giving the remedy for a continued period a change or rest should be allowed the patient from time to time, as the system becomes accustomed to the drug which loses its effect.

It may not come amiss to give a brief description of the remedy, taken from Boericke's "*Materia Medica*," showing the homœopathicity of the drug to the disease:

LYCOPUS VIRGINICUS (BUGLE WEED).

"Is a heart remedy and of use in exophthalmic goiter and hemorrhoidal bleeding. Indicated in disease with tumultuous action of the heart and more or less pain.

"*Eyes*.—Protrusion, pressing outward with tumultuous action of the heart, supraorbital pain.

"*Heart*.—Constriction, tenderness, pulse weak, irregular, intermittent, tremulous, rapid; cyanosis. Heart's action tumultuous and forcible."

Palpitation from nervous irritation from pressure around the heart.

Rheumatoid flying pains associated with heart disease.

Dose.—First to thirtieth is mentioned, but my results have been best from five drop doses of the tincture as suggested by Dr. Cowperthwaite. E. I. GEORGE, M. D., *Journal O. O. and L.*

INDICATIONS FOR STAPHISAGRIA.—To recapitulate, ailments from indignation with vexation, restrained displeasure, great weakness and relaxation of all organs, mind cannot throw off trouble. Head has to be supported by hand. Stomach and abdomen hang relaxed. Great sense of weakness in stomach even when full of food. Weakness and excitability of genitals, both male and female. Ailments from sexual excesses and abuses, and from continually dwelling on sexual subjects. Hardness of glands; great sensitiveness of affected parts. Cauliflower, excrescences, pediculated warts. Troubles from incised, clean cut wounds. It is to clean cut wounds what calendula is to lacerations. Arnica, hamamelis ledum and sulphuric acid for bruises, rhus-tox., calc. and nux v. for strains, calc. phos. and symphytum for fracture.—DR. VALNEY A. HOOD, in *Staphisagria*, May, *North American*.



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Clarence Bantlett

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STOMACH CASES FROM THE VIEWPOINT OF THE GENERAL PRACTITIONER.

BY

WILLIAM H. YEAGER, M. D., PHILADELPHIA.

(Read before the West Branch Homœopathic Medical Society, Williamsport, Pa.)

THE patients who have drifted to me suffering with either functional or organic disease of the stomach have proven, on the whole, to be one of the most satisfactory classes of patients that I have been called upon to treat. The reasons for this, I think, are manifold.

In the first place, when glancing over the history presented by our patient, it is usually so easy to find good and sufficient etiological factors at work to account for their sufferings, and consequently we are at once in a position to give them both interesting and valuable advice.

Secondly, the means at our disposal to-day of making an accurate diagnosis of our patients' condition are so eminently satisfactory and so easy of application that we can all congratulate ourselves, and with a very modest equipment do really scientific work.

The stomach tube is not used often enough by the general practitioner, and the information that he would get from a test meal, properly examined, would be a tremendous aid in helping him to understand the needs of the case.

The use of the digestive ferments, for instance, should always be preceded by an analysis of the gastric contents. Too often these substances are administered to the patient in a hap-

hazard fashion and without definite indications, this is inexcusable when we can find out so readily just what the stomach needs. Again, after the test-meal has been removed, and the stomach carefully washed out, before removing the tube, we can pump a little air into the stomach and by gently distending it, map out its exact position and size.

In your cases of persistent vomiting, lavage often proves a blessing to both the doctor and the patient, and where the stomach is foul from the accumulation of quantities of mucus, or the retention of decomposed foods, the washing of the stomach is a sane and rational procedure, and the results are very gratifying. The only contra-indication to the careful use of the stomach tube is where you fear hemorrhage from the stomach or elsewhere. Testing for occult blood in the feces is simple and valuable.

Thirdly. The physical examination of the patient so often shows us just what is best to do for the case. In addition to the finding of a dilatation of the stomach, or a ptosis, or an hour-glass contraction or some neoplasm affecting the stomach, we may discover some reflex cause for our patients' sufferings, for instance I have frequently discovered a chronic appendicitis, or movable kidney, pulmonary or heart disease, at times a kidney insufficiency, naso-pharyngeal catarrh, gout, syphilis, tuberculosis and so on. All this makes the stomach case an interesting study for the thoughtful doctor, and very satisfactory because of the definite knowledge to be obtained.

Fourthly. In functional disturbances of digestion, a little educating of the patient along dietetic lines and in matters of personal habits and hygiene give very satisfactory results to both doctor and patient; for the stomach, after all, is very tolerant of abuse, and very quickly returns to normal functions when conditions are favorable.

Finally, I come to my real reason for presenting this paper to you, and that is to say something to you about the application of the homœopathic remedy to diseased conditions of the stomach. I think that in this matter of prescribing, many of us are making a serious mistake which I shall endeavor to point out; but first let me say that we should freely admit to ourselves, and to the world, the limitations of the usefulness of medicines. Nothing is more certain than this, it is such folly for any one to expect medicine to work wonders in the face of an incurable malady, or where the cause of the trouble is not

removed. It is just here that we bring ridicule upon ourselves and our school. On the other hand, it has been my experience that whenever I have been able to make a *good*, accurate homœopathic prescription, after placing my patient in a position to be cured, the improvement that has followed has been more *rapid* and more *extensive* than follows any other system of therapeutics known to the science of medicine to-day.

Why do we not always make a good, accurate homœopathic prescription? That is the question that I wish to ask you. It seems to me the trouble with many of us is that we have fallen into the habit of using a *limited* number of our drugs for *all* of our cases. We have remembered our polycrests and have forgotten about a rather large number of other drugs that have to do with the stomach almost exclusively. These drugs are undoubtedly indicated many times in our cases, and consequently many times we are disappointed in our endeavors to help our patients, simply because we have overlooked these very drugs.

Take for example our *ABIES NIGRA*, which, as you know, produces that painful weight in the epigastrium, described as if an undigested hard-boiled egg was lodged there. No other drug has this symptom as pronounced as *abies nigra*, and consequently when our patient describes a similar sensation, and says that this is the salient feature of his case, he should get *abies nigra* and not *nux vom.*, even though he was constipated, tired in the morning, with no appetite until evening, and had been indulging in tobacco, alcohol, coffee or tea to excess, because these latter symptoms are common to both drugs, but the great keynote symptom, i. e. the peculiar pain in the epigastrium belongs to *abies nigra* exclusively. Under these circumstances *nux vom.* would disappoint you, and yet the fault is yours, you failed to read nature's signals aright.

To further illustrate my point, let me speak for a moment of *ANACARDIUM*. This is another drug that has been discarded of late by many of the so-called "rational prescribers" of to-day, and yet it is pure gold in the hands of those who understand the drug and use it in its proper place.

What shall we do for the poor, wretched neurasthenic who comes to us with his story of violent gastralgic pains, worse at night, and only relieved by eating?

Of his terrible and almost constant hunger and empty sensation relieved by eating.

Of his frightful headaches relieved by eating.

Of his impaired memory, his depression and irritability all relieved by eating.

Of the disgusting sensation of a plug tightly wedged in various parts of the body as the eyes, rectum, bladder, etc., which he is able to forget after he has eaten something and thus quieted his nerves.

Of his irresistible desire to swear and curse when he is suffering, which desire passes away after he has relieved his suffering by eating, for *eating does relieve all the anacardium symptoms.*

It is not strange that this patient soon becomes a true lunch fiend, and this constant eating soon leads to gastric catarrh, and this again to more neurasthenia, and thus the vicious circle is kept up. What shall we do, I say, for this patient? The majority of them get nux vom. for these symptoms, together with the anacardium constipation, resemble nux very closely. It has been my experience, however, that nux does not help these patients, therefore the "rational prescriber" will at once turn to his tablets of bismuth and cascara and palliate his case, when he could, if he would only remember a little of his homœopathic resources, bring about a cure of the case with the greatest ease, rapidity and certainty.

GRAPHITES is a remedy that should not be neglected in stomach disorders. Dr. Jousset, the celebrated French homœopathist, says that graphites is second only to nux vom. in importance among the stomach remedies, surely with such a recommendation the drug must have a place in this field of therapeutics; and yet, how often have we thought to use it in our cases?

It has always seemed to me that graphites and pulsatilla were very similar in their symptomatology, but the former drug has the tendency to the development of skin eruptions.

Graphites has marked tympanitic distension of the stomach and bowels, the patient being obliged to loosen the clothing for comfort; this of course, is common to lycopodium, carbo veg., nux vom. and china, but in graphites the breath is so horribly offensive, and the flatus is rancid or putrid. Then we must remember that this patient is inclined to obesity and flabbiness.

Speaking of tympanitic distension of the stomach always brings to mind ARGENTUM NITRICUM. I believe that flatulence

is more marked under this drug than under any of the others. It is true that kali carb. has the symptom that every thing the patient eats seems to turn to gas, but argent. nit. has the tense distension of the stomach almost to the bursting point, with the tremendous gastralgic pains, the violent belching and the great relief therefrom.

Flatulent dyspepsia is almost always found in neurotic individuals and here again arg. nit. comes to mind, for in this drug the neurotic effects are very marked. One word expresses the predominating feature of this neurasthenia and that is impulsiveness. The patient on the impulse of the moment will eat a large quantity of sweet food in spite of the fact that she knows she will suffer for it. Impulses to jump from a window. Always doing something upon the spur of the moment, always in a hurry.

The argentum nitricum women have abnormal appetites and eat far too much sweet foods or fancy dishes instead of nourishing foods. This kind of living leads to the development of anæmia, hyperchlorhydria, and finally gastric ulcer, and in such cases we turn to our silver nitrate with a great deal of confidence.

These patients complain of a certain sore spot which can be pointed out just below the end of the sternum and between this and the umbilicus. From this spot pains radiate in many directions, especially through to the back.

This remedy one compares with arsenicum in gastric ulcer. It has the burning pain, the vomiting of glary mucus, the clean tongue and so on, but in argentum nitricum, you have the belching as a star feature of all the gastric conditions; eructations of a burst of air roaring out in great quantities and bringing relief to the sufferer.

The drug must be used in a freshly made, watery solution, not stronger than the 6x. I keep the crystals on hand, carefully weigh out $\frac{1}{2}$ a grain, dissolve it in an ounce of distilled water, and this gives me the 2x. A dilution of 1 to 100 from this gives me the 4x, and another dilution the 6x.

I should like to tell you of a recent experience with one of my private patients. A man, aged 64, living an out-of-doors life, and not given to excess of any kind, gradually developed an old look, a sallow complexion, a loss of ambition, a loss of flesh, presented a coated tongue marked by the teeth, complained of an empty gone sensation in the epigastrium before

meal times, but above all a pulsation in the region of the stomach that "got on his nerves." He was also very much constipated.

The gastric contents showed large quantities of ropy mucus, food poorly digested, hydrochloric acid diminished, lactic acid absent.

I diagnosed his trouble as chronic atrophic gastric catarrh, and held in reserve the possibility of an on-coming malignancy. I prescribed *HYDRASTIS CANADENSIS* for him for about two weeks with a relief of his symptoms, but of course no improvement in general health. He then became dissatisfied with me and went to a sanitarium in Philadelphia, where he got careful selection of food measured out for each meal, electricity, tonics and laxatives, also regular lavage. In about four months' time this patient came back to me very much depleted in strength, flesh and finances, and asked me to give him some more of the medicine that I had previously prescribed. He claimed that he had given other things a long trial and that my little pills relieved him more than anything that he had since gotten. I renewed the prescription and the man has again picked up a little in flesh, is able to attend to his duties, but by no means absolutely well. On his return I was again anxious to analyze the gastric contents to see if the cancer theory had developed, but he absolutely refused to allow the use of the stomach tube, saying "that he was sick of it, and wanted nothing now but pills."

I have seen some very brilliant results from *PHOSPHORUS* in serious diseases of the stomach. It has been a great friend to me in treating both ulcer and cancer. In ulcer it acts curatively and in cancer it palliates wonderfully if well indicated, probably by controlling the cancerous ulceration.

I have learned to depend upon this remedy when the patient is tormented with great thirst, but the water must be very cold, the food as well must be cold. This amelioration from cold substances in the stomach can be understood when we remember the usual effects of moderate cold upon congested, inflamed or ulcerated areas generally. As soon as the water or food becomes warm in the stomach, it no longer ameliorates, but is simply an irritating substance to the diseased mucosa, consequently the stomach will not tolerate it and vomiting occurs. Food and drink are not, therefore, retained very long within the stomach and very little digestion can take place; because of this we are not surprised to find the patient complaining of a

gone, weak feeling in the stomach, worse about 11 A. M., but more or less constant all the time. The patient longs for food, but will not eat because he dreads the vomiting that follows.

Blood in the vomit suggests phosphorus, and here it is well to remember that cold ameliorates phos. stomach conditions. I always like to get something cold in or near the stomach in these cases of hematemesis. Pain in the region of the stomach is complained of and is worse after a meal, or after vomiting, or when the patient is not lying upon his right side. This desire to lie upon the right side in the phos. patient is a very marked modality and is due no doubt to some circulatory phenomena which I should like you to explain to me presently.

Allow me for a moment to speak of such an every-day drug as *NUX VOMICA*. The practical homœopathist soon learns that he can prescribe *nux* with more certainty for a peculiar picture of concomitants, than for any one particular picture of gastric symptoms. This picture of concomitants might be described as follows:

First, temperamentally the patient is a victim of the rankest sort of pessimism, alternating with demonstrative outbursts. It is needless to tell you that these outbursts are produced by many and by any slight causes. It is not possible for the *nux* patient to weigh any matter calmly and philosophically. If considered by him in his tranquil state he gives a pessimistic outlook or opinion. If considered by him in a period of demonstrative activity, his judgment is eclipsed by his irritability and passion.

Secondly, he is epicurean in tastes. This is a great cause for his digestive disturbances. His tastes include dainty or highly seasoned foods, wines, cigars of strong flavor and lots of mental excitement. Patent nostrums with highly colored lithographic announcements are very attractive. He is an epicure; he is never an enthusiast of "the simple life."

Thirdly, he is always pressed for time and hence overworked. He has neither time for rest nor time for work, nor time for chewing his food, nor time for a stool. For these reasons he attempts a great many things and accomplishes less than he should of the real work of life.

Fourthly, his gastric picture is very simple. It consists of a heavy pressure in the mid epigastrium that comes on two hours or longer after a meal, and that is attended by epigastric distension, that requires a loosening of the clothing for its re-

lief. As long as this pressure pain lasts, he is very sensitive all over the epigastric region. His bowels, like himself, are unnaturally active and accomplish very little, that is there is irregular peristaltic movements that suggest a stool, but no real results follow.

You know him, I am sure, from your every day practice, because the nux patient is always with us in this age of tension and struggle for the survival of the fittest.

The use of ATROPINE is looked upon with much favor at the present time by a great number and a great variety of medical observers. It is not recent, however, in its origin. Those of you who read Baehr will notice that he recommended its use in ulcer as early as 1869. He found that nothing would control the frightful lancinating pains presented in gastric ulcer as well as the sulphate of atropine, but it is curious to notice too that these earlier physicians mention the fact that atropine alone will not act curatively. Baehr says it is palliative in its effect and that he frequently gave sulphur after the atropine to make the benefit more lasting. He evidently had a great deal of trouble with relapses, because the rest cure of the stomach in cases of ulcer was not in vogue in those days, and they did not have the great advantage of rectal alimentation at that time.

I could point to a number of cases which seem to have been undoubtedly ulcers of the stomach cured from the combination of simple rectal feeding, followed by gradual resumption of stomach feeding and the persistent administration of atropine in doses of one grain of the 3x or 6x trituration repeated every three or four hours.

I think that the remark of Dr. Richard Hughes that he has very generally given the sulphate of atropine 3x in alternation with a remedy having a more homœopathic relationship to ulcer, is worthy of notice.

It would look as if this close observer had also found that the atropine helped ulcer pains better than any other drug. He said that uranium nitrate healed the ulcer better than atropine, but that the latter was the best palliative for the sharp pains. Atropine finds its usefulness, I think, in the cases that suggest belladonna, but where the belladonna has failed to control the pains, and we should always use it with the suspicion that after the pains are relieved a close similimum might have more curative powers.

If there is anything in the selective action of remedies for

certain organs, it should be easy to see that ARSENIC certainly does inflame the mucus surfaces of the stomach, and indeed of the entire alimentary tract, producing pathological changes all the way from a congestive irritability to actual ulceration, and this is particularly noticeable near the pylorus. This irritant action of arsenic upon the mucus membranes produces sensitiveness and soreness in the epigastric region, associated with a burning pain. Food and drink can only be taken in small quantities, any bulk in the stomach is not tolerated and causes vomiting. The vomited matter may contain a small amount of dark blood, due to the intense congestion or ulceration.

This inability to retain food or drink in any quantity sufficiently long to allow digestion to take place results in extreme prostration, weakness and debility. A great thirst torments the patient, but the water must be taken in sips.

Strange to say applications of heat would be likely to relieve to some extent the burning pains in the stomach, while cold drinks, although agreeable to the palate, would aggravate the gastric irritability.

The patient desires to move about, for arsenic above all things is a restless medicine, even in the face of great prostration. This restlessness in the arsenic patient, combined with fear or a hopeless, despairing mental state, is so characteristic and pronounced that I should feel I had made a mistake in selecting arsenic as a remedy if it were not present in my case.

The arsenic patients do not take a very sanguine view of the future course of their disease, and indeed many times the physician is in hearty sympathy with this view, for the cardinal symptoms are all suggestive of a very serious condition.

I have seen remarkable results from the remedy used in cases of so-called ptomain poisoning that have been brought on by eating tainted foods. (You can, I am sure recall the *violence* of the symptoms that these cases have presented, and note that they have a close *resemblance* to the acute symptoms of arsenic poisoning.) Also in acute gastritis of a more chronic character, and in cases of gastric ulcer and carcinoma.

To be successful in our practice of homœopathy, it is essential that *each remedy* be studied individually, in such a way that the characteristic indications shall be clearly established. These characteristic indications may consist of "isolated key notes," but more often they consist of "symptom groups."

In our investigation of any case of *illness*, it is likewise

essential that a characteristic "symptom group" be brought to light, or at least that enough reliable "key notes" be recommended, to enable us to successfully apply some proven drug to the case. It is only when we admit the truth of this statement and govern our therapeutic procedures accordingly, that we are able to avoid empiricism and routineism, neither of which often win success save by accident.

In our stomach cases therefore we must make careful note of the most prominent symptom or condition that the patient presents, and make sure to select a remedy that has this symptom or condition very characteristic in its pathogenesis.

If we had a case where anæmia was marked we would find our remedy among such drugs as ferrum met., china, pulsatilla, graphites, calc. carb., nat. mur., etc.

The next most noticeable thing about this patient might be a marked gastric catarrh with its coated tongue, offensive breath, slow digestion, weight and heaviness in the stomach sometimes after a meal, mental irritability or depression and so on. Now this symptom group might suggest *abies n.*, *kali bi.*, *nux vom.*, *hyd.*, *ant. crud.*, or *carbo veg.*, from the standpoint of the gastric catarrh alone, but we must not forget that we have the anæmia or chlorosis to deal with as well.

Taking the symptom group of gastric catarrh plus the keynote of anæmia into consideration, limits our therapeutic resources to about two drugs, namely china and pulsatilla. Now china is the more acute of the two remedies, we think of it where there has been a recent blood destruction going on, as in a case of malaria; or where there has been a recent hemorrhage, or a loss of some body fluid as in the case of profuse diarrhea. With pulsatilla there is no such history; and the anæmia, or more often the chlorosis, seems to be a part of the general make-up of the individual.

Now for the sake of the argument let us say that our patient favors most the conditions of the latter drug. The next thing to do is to make sure of the correctness of our choice by finding concomitant symptoms that will agree with the pathogenesis of pulsatilla and thus give us "the third leg to our stool." We investigate and find that our patient is of a gentle, mild, yielding disposition. With a tendency toward melancholia. We find that her menstruation is usually late in appearing, and that she is troubled with a thick, bland, yellowish-green leucorrhœa. We find as a concomitant to her stomach condition

a marked thirstlessness, an aversion to fat food, a pasty taste in the mouth, heartburn, etc.

We are now in a position to prescribe for our patient. If we regulate her habits of living scientifically, we can prescribe *pulsatilla* with a remarkable degree of *certainly* that it will accomplish more in the way of bringing about normal body functions than any other method of procedure known to medicine.

One more thought, please, before I close, and that is this, when we select a remedy in the manner above described, we do not need to use such a very low potency to get the best results. *Pulsatilla*, for instance, would give you greater satisfaction if used in the thirtieth centesimal dilution than if you used the second decimal.

This subject cannot be covered in any one paper. It would take a volume to do anything like justice to the therapeutics of disease of the stomach. The principles, however, which I have endeavored to point out to you are the means to a great end.

In the first place, if we would work them out in our every day practice, we would soon become good homœopathic prescribers.

In the second place, when we are good homœopathic prescribers we are successful physicians, provided that in all other things pertaining to medicine we are thoroughly conversant with the latest scientific attainments.

POISON IVY TREATMENT.—Gardner, in the *Medical Record*, believes that there is nothing superior to old-fashioned lead and opium wash, for the treatment of rhus poisoning. The part is first cleansed with a 1-to-40 solution of phenol and any good laundry soap, and after this water is not again used. If further cleansing be necessary, carbolized oil is used, applied with absorbent cotton. An improved modification of the old lotion is made by taking an ounce of distilled water and adding to it 10 grains of boric acid and 5 grains of the acetate of lead and in place of powdered opium add *liquor morphinæ sulphatis*. This odorless and non-staining wash is applied on antiseptic gauze, or if the part is inconvenient to bandage, the lotion is first applied and the parts then dusted with stearate of zinc. It is advised that the patient wear loose cotton gloves, if the hands be not bandaged, so that the rash may not spread to the eyes and genital organs. The author states that this treatment has never failed to speedily and painlessly cure all cases, and often after ordinary home remedies had been used. He believes that failures are due to the application of too strong solutions, thereby causing pain and inflammation of the skin.

GOITER.

BY

F. W. ROBERTS, M. D., PLYMOUTH, PA.

(Read before the Luzerne County Homœopathic Medical Society.)

By goiter we mean an enlargement of the thyroid gland due to hypertrophy or hyperplasia. This does not include cases of enlargement due to simple congestion, inflammation or abscess, nor does it include syphilis or tuberculosis of the thyroid. Malignant disease of the thyroid has, however, been given the name of malignant goiter.

The thyroid is a ductless gland weighing from one to one and a half ounces, and consists of two lobes and an isthmus. It is deeply placed in the front of the neck, well protected with strong muscles and closely attached to the trachea and larynx, which fact explains the rise and fall of the goiter during deglutition. The gland receives as rich a blood supply as the brain from its two superior and two inferior thyroid arteries. In many cases there is a process extending upward from the isthmus called the pyramidal process. This process is the remains of the thyro-glossal duct which normally disappears. The isthmus being developed as a down growth of the epithelium of the posterior part of the tongue starting from the foramen caecum at the base of tongue, the canal extending from this foramen to the isthmus, being known as the thyro-glossal duct. The accessory thyroids are found in varying positions in this region and are regarded as being formed by a division of this pyramidal process, and explain why myxoedema does not follow in all cases where the entire thyroid gland has been removed by operation or destroyed by degenerative changes.

Since the structure of this gland is similar to other glands as the salivary and the pancreas, except that it is ductless, and since surgeons of extensive experiences have operated on cysts of the thyro-glossal duct, having their origin in the thyroid and an opening at the foramen caecum at the base of the tongue, McCarty draws the following conclusions: At one time in man's history the thyroid opened into the alimentary canal by a duct. Man's environment became changed and he then lacked the normal stimulus for this function of the

gland and the duct disappeared. He thinks that goiter is produced by the partially rudimentary thyroid endeavoring to revert back to its original activity in response to an unknown stimulus. In a ductless gland the first change would be hypertrophy and increased secretion and there must either be a cyst formation (cystic or simple goiter) or an absorption of the increased secretion causing exophthalmic goiter. McCarty also considers the toxin causing symptoms in exophthalmic goiter as the product of the thyroid just as toxic substances in case of kidney and liver disease are products of their own secretion.

The thyroid is covered with an external and an internal capsule, the former containing the recurrent laryngeal nerve and the parathyroid glands while the internal capsule is closely adherent to the gland extending into its interior and dividing it into lobules ultimately surrounding each alveoli.

The recurrent laryngeal nerve runs in a groove between the oesophagus and trachea on the posterior aspect of the gland, while the para thyroids, usually four in number, are also posteriorly located.

Each alveolus of the gland is lined with a single layer of cells and is usually filled with a secretion varying in consistency and called colloid. We know that the thyroid gland is an organ which by the internal secretion of certain substance performs a vitally important function. The alveolar cells take substances from the blood, alter them in an unknown manner, the secretion being stored for a while and then enters the circulation. This secretion represents either an important constituent of the liquids of the body or else neutralizes certain poisons that may be present.

The most characteristic feature of the gland is the iodine containing albumen (Bowman's Iodo thyrim) which is capable of replacing the thyroid secretion. In the examination of 200 glands there were only two without iodine, and these were from cretins. The thyroid has a special influence probably of a chemical nature over the nervous system, especially the vaso-motors, next on the skin and epithelial structures and finally on the osseous and sexual systems. If there is an absence of or greatly diminished thyroid secretion we have cretinism or myxedema produced. If there is an increased function there is either increased secretion without increased absorption, causing simple cystic or colloid goiter; or, we have

increased secretion with increased absorption, causing hyperthyroidism or exophthalmic goiter. In classifying goiters I think we should look upon the different types as stages in one general process and not as distinct entities.

For the sake of simplicity we will speak of goiters under two general classes, or rather, stages, simple goiters and the exophthalmic type. Simple goiters are really multiple retention cysts filled with non-absorbable secretion and detached cells, and causing no symptoms except from pressure or redundancy. Simple goiters are either diffuse or parenchymatous or nodular or encapsulated. In either variety we may have compensatory focal parenchyma increase and hypervascularization. Hemorrhage and fibrous and lime salt deposits are degenerative changes occurring in either variety. The examination of 600 simple goiters showed them to be alike in that they consist of swollen acini whose walls are either stripped of epithelium or lined with thin flattened cells, and whose contents are not absorbable. In other words, the gland is doing a decreased amount of work and is not absorbing the result of its previous activity. When there is a decrease of absorption from the part of a gland there often occurs compensatory hypertrophy in another portion. When this hypertrophy is merely sufficient for compensation there are no symptoms, but when there is over-compensation we have symptoms of exophthalmic goiter, engrafted on a case of simple goiter.

In treating a case of simple goiter the first indications are to remove patient from the goiterous region, if possible, and to boil all the drinking water. Iodine enjoys the greatest reputation in the treatment of simple goiter and is used extensively both internally and externally. Kocher, however, truly states that the time has long passed when every goiter patient, without respect to person, was given iodine internally and externally without choice of preparation or accuracy of dosage. He also states that appropriate internal treatment must be based on an accurate investigation of both goiter and patient. Iodine may be given protentized but is often used in the form of potassium iodide.

Spongia and Calcarea are often excellent remedies. Baryta. Iod., Phytolacca and Bromine are to be considered. Goodno has seen goiters disappear under drachm doses of the Syrup of Hydriodic acid t.i.d. Electrical treatment may be applied

by introducing a needle, connected with the negative pole, into the gland and placing the positive electrode on the gland near the needle, giving 5 to 10 milliamperes for 5 to 10 minutes. Iodine may be used locally as a 5 to 10 per cent. ointment, as Iodine Vasogen or Iodine Petrogen, painted on, as a tincture or in the form of a 3 per cent. ointment of the red iodide of Mercury. This last mentioned should be well rubbed in once daily and the gland exposed to the rays of the sun for twenty minutes, when possible. Belladonna and Ergot in small and increasing doses are used by some authorities. The great majority of these cases are medical and do not require surgery, yet in some cases it is absolutely necessary to relieve pressure symptoms, and in some cases advisable for the cosmetic effect.

Kocher gives the following indications for operating simple goiter:

1st. Colloidal degenerated nodules as well as fibrous calcareous hemorrhagic and cystic degenerated nodular goiter should be at once turned over to the surgeon as medical treatment is useless.

2nd. Diffuse colloidal goiters that have resisted several brief periods of iodine treatment should be operated upon, especially if there are functional disturbances of the thyroid.

3rd. All goiters producing pressure symptoms should be operated upon.

4th. All goiters producing cardiac symptoms should be operated upon.

5th. All goiters abnormally situated as pendulous ones and inter-thoracic ones, which are very dangerous if the goiter continues to grow, should be operated on.

6th. If it develops suddenly and grows rapidly, and if the shape and consistency are unusual, it must be operated regardless of the patient's age.

7th. A goiter showing sensitiveness on pressure, especially if causing spontaneous pain, must be referred to the surgeon.

Contra indications for operating are great obesity, fatty heart, myocarditis, emphysema, bronchial and tracheal catarrh. Cases of this kind should be kept under observation to determine if the symptoms are really due to goiter, and if they prove to be, to get patient into better condition to operate. We will now consider the condition produced by the increased

absorption of the secretion of the thyroid gland, exophthalmic goiter. Better names for this condition are Hyperthyroidism or Thyrotoxicosis. Basedow's disease, Greaves' disease and Parry's disease are synonymous.

In a large series of cases reported by Wilson, this authority was able to give a correct conjecture as to the clinical picture in 80 per cent. of the cases, simply by the pathological finding, he being entirely ignorant of their history or appearance at the time. In 17 per cent. of the cases this discrepancy could be explained by a review of the data, leaving but 3 per cent. unexplained, except by the varying resisting powers of the different patients.

The following facts were brought out by Wilson's investigations:

1st. Following a metabolic, chemical or external irritant the thyroid parenchyma proliferates, over-functionates and degenerates.

2nd. The process is either an increase in the number of cells in an acini (papillary projection) or an increase in the number of the acini.

3rd. Either process may start in a normal gland or in one affected with simple goiter.

4th. The severity of the symptoms depends on the amount of absorbable secretion present, and the patient's ability to neutralize it.

5th. The more functioning parenchyma cells the more secretion, and the more fluid the secretion the more absorbable. When a dense gelatinous material fills the acini it is evidence not of present secretion, but of blocked absorption and parenchyma destruction. If the patient could live long enough all cases of exophthalmic goiter would degenerate and become simple goiters, and as a matter of fact many of them do. Other cases, however, would die from the intoxication and the degeneration of vital organs, before this reversion to simple goiter takes place, unless we interfere and prevent such a result.

We, of course, should not get a hobby and call every case of nervousness goiter, but I thoroughly believe that our patients would be benefitted if we would consider the possibility of hyperthyroidism in all cases of tachycardia and extreme nervousness whether or not there is a noticeable external glandular enlargement.

The protruding eyeballs occur, especially in acute cases, but are by no means always present. The severe acute cases present the following fatal picture:

The thyroid is enlarged and vascular and there is often heard a thrill over the thyroid vessels. The pulse is quick, of high tension and extremely irritable. The heart beats forcibly and there may occur dilatation and degeneration of the heart muscle. There may be cardiac and vascular murmurs, capillary pulse, congestions, constant feeling of heat and frequent hemorrhage, especially from the nose and gums. If the blood pressure is decreased it is of bad omen, showing heart in sufficiency. There will be mental and physical unrest, irritability, insomnia, and tremor of the hands, arms, legs, tongue and lips. There is relaxation of the superficial capillaries the skin being moist and the patient sweating freely, especially under the least excitement. The skin has a red injected appearance.

The hair, including the eyebrows, becomes paler and falls out, the nails crack and the teeth become brittle. There is often vomiting and diarrhea. Great lassitude, diminished resistance, weakness and marked emaciation are symptoms that are never absent in the pronounced stage of severe cases, but they are among the earliest symptoms influenced by internal treatment. The menstrual flow diminishes or ceases. The cervical glands may be enlarged, the thymus sometimes persists and there may be a hypertrophy of the entire lymphoid apparatus. The blood changes are characteristic and a diagnosis can be made from the blood picture. In cases ending fatally the heart becomes enormously dilated, pulse very irregular, delirium cordis, and collapse with albuminuria, fever dyspnœa, œdema, enlarged liver, anuria, delirium coma and death.

This pictures a death from hyperthyroidism and is the same as when they die about twenty hours after operation, especially in young adolescents. In chronic cases many symptoms may be absent, there being, perhaps, only vascularity of the thyroid, tachycardia, mental and physical unrest and the blood changes. In a late stage of the disease you may get symptoms of myoxodema caused by hypothyroidism due to degenerative changes. In acutely fatal cases autopsy shows degeneration of the heart, blood vessels, liver, kidneys, muscles, mucous

membranes, serous membranes, the same as in other intoxications; the only characteristic change is in the thyroid gland.

We are dealing with a not uncommon and often a severe and rapidly fatal disease. Now the question arises, what can we do for these patients? The objects of our treatment should be to avoid or diminish injurious influences and to modify the function of the thyroid gland. Rest in bed is absolutely necessary in many cases, with proper feeding, cold water, massage, the proper medicine, possibly the serum treatment, electricity, and last, but not least in importance, operation. Any number of drugs have been recommended. *Lycopodium Virginicum* probably enjoys the best reputation among followers of Hahnemann, and it is undoubtedly very frequently indicated by the symptoms and I feel sure I have seen good results from this medicine. Thyroid extract and Iodine in physiological doses are absolutely harmful in these cases, and should never be given. There is already too much thyroid secretion with its contained iodine and to put more into the system is adding insult to injury. Aurum, *Belladonna*, Amyl Nitrite and Glonoin are often indicated by vaso motor disturbances. Sodium Phos., Sodium Salicylate and Sodium Glycerophosphate, the Bromides, Phosphorus preparations, *Strophanthus*, *Digitalis*, Validol and Digalen all have their advocates.

The X-ray to the thyroid, I believe, is often of great benefit. I believe that Camphor and olive oil, *Digitalis* and *Strophanthus* are often useful to tide over collapsic symptoms and that saline solution in rectum and an ice bag over the heart aid greatly in these cases. Beebes and Rogers Serum is used but results are not satisfactory as yet, as the serum is of difficult preparation and not of uniform strength. Extract of thymus gland is used of late but results as yet are uncertain. The neutral hydrobromate of quinine first used by Forchheimer is highly praised by several men. Three or four five-grain capsules are given daily for a number of months or years, to be stopped when tinitus appears. Kocher says that drugs are only of relative value and symptomatic treatment is being relegated more and more to the background. He also says, "To say that operative treatment is still the best is not enough. It has proved itself superior to any other form of treatment."

Kocher's mortality in 200 cases was $4\frac{1}{2}$ per cent., with

85 per cent. of cures. While in simple goiter the same surgeon only had three deaths in 1000 cases operated. At the Mayo Clinic there were four deaths in 575 cases of simple goiter operated. One of these was from trachial collapse, one from hemorrhage and two from pneumonia. In 410 cases of exophthalmic goiter operated at the Mayo Clinic, there were nineteen deaths, making their mortality between 4 and 5 per cent. In the first sixteen cases of this series they had four deaths, while in the next forty cases, owing to better judgment and technic, there were only three deaths.

Indications for operating exophthalmic goiter may be summed up as follows: I would suggest that we refrain from operating all mild cases that can be cured medically. This applies particularly to goiter occurring in girls between fourteen and twenty-three. In these cases the mortality is comparatively high when operated, and the great majority recover entirely by the age of twenty-three under medical treatment. I believe about one in twenty of these cases require operation. In cases of moderate intensity after a four weeks' medical treatment without improvement, a partial thyroidectomy should be performed. In serious cases operate after a careful preparatory treatment unless there are positive contra indications for operating. It is better not to operate during marked cachexia or during a gastric crisis or intestinal relaxation or in the presence of severe renal or myocardial lesions. When in condition it is usually wise to remove the right lobe (because it is the larger) and isthmus. It may, however, be necessary to do a preliminary ligation of the two superior thyroid vessels and possibly also one of the inferior thyroids before the patient can stand partial excision.

In moderately severe cases the ligation may complete the cure and cause the gland to revert back to a simple goiter. The accidents to be looked for during and after thyroid operations are delayed hemorrhage, injury to the recurrent laryngeal nerve with resulting hoarseness or loss of voice, tracheal collapse and removal of the para thyroids causing tetany. The surgeon must also be careful not to remove too much of the gland, making it necessary for the patient to take thyroid extract the rest of her life, and he should also be careful to cover up the raw surface of gland with the capsule and thus avoid the rapid absorption of secretion which is the usual cause of death in these cases.

Dr. C. H. Mayo's technic for the ligation of the superior thyroids is as follows:

Give the patient Morphine gr. 1-6 and atropine 1-100 gr. under the skin thirty minutes before starting anaesthesia. Use ether on the open mask or in severe cases use 1-10 of 1 per cent. solution of cocaine in salt solution. Make a transverse incision two and a half inches long, crossing the central part of the thyroid cartilage. This incision should, if possible, be in a natural skin crease, and should include the platysma myoides muscle. The inner border of the sterno cleido mastoid is traced laterally. This exposes the omo-hyoid which is traced up and in toward the mid line. Beneath this muscle is the upper pole of the gland with its vessels.

Ligate close to the gland using No. 50 linen passed around with an aneurism needle and including both artery and vein. Repeat the same procedure on the opposite side and close the wound with a subcuticular suture of No. 2 catgut without drainage. The mortality in ligation is 2 per cent. To give the technic of a partial incision I will repeat a case I saw Dr. Jud operate in the Mayo Clinic. The patient was a woman forty-three years old, who was nervous for twenty-five years and has had a big neck for twenty years.

The Kocher collar incision was made across the front of the neck over the thyroid gland and including the skin and platysma myoides muscle. Dissect the upper flap upward to hyoid bone and the lower flap well downward. The sterno-hyoid and sterno-thyroid muscles are separated from their mates in the median line. These two muscles, together with the omo-hyoid on the right side, were cut transversely between clamps near their upper extremities where they are tendinous. He then enters the external capsule which moves freely over the gland surface and makes a vertical incision through the internal capsule well up in the gland, thus avoiding the recurrent laryngeal nerve. The inferior thyroid vessels on one side are ligated well up in the gland capsule to avoid the same nerve which sometimes runs in front of the vessels instead of behind them on the right side. He commences at the upper pole and dissects the gland from the internal capsule, clamping vessels as he goes.

By keeping within the internal capsule he saves the nerve and blood supply and also the parathyroid bodies. In this case the right lobe, isthmus and one-half of the left lobe was

removed. The surfaces of the remaining portion of the gland were then sutured with a continuous suture of No. 2 plain catgut, including the capsule. This suturing controls hemorrhage and prevents a too rapid absorption of the thyroid extract with resulting hyperthyroidism. Both superior and inferior thyroid vessels were clamped on the right side and these, with all other bleeding vessels, ligated and the clamps removed.

The sterno and omo hyoid and the sterno thyroid muscles were sutured where they were divided and brought together in the median line with those of the opposite side. Two rubber drainage tubes were inserted into the open capsule from where the gland was taken and the wound closed by suturing the platysma myoids together, and then using a subcuticular suture of the skin with catgut. Remove tubes in twenty-four hours. Use No. 2 plain six or eight day gut throughout. Patient was put to bed with ice bag over heart and saline solution given slowly by rectum or under the skin. If she is very restless he uses morphine. If sweating profusely he uses atropine. If the heart is very weak he uses camphor and olive oil.

THE TREATMENT OF CHRONICALLY DISEASED URETHRAL ADNEXA IN THE MALE.

BY

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(Read before the Bureau of Sanitary Science at the Meeting of the American Institute of Homœopathy, held at Narragansett Pier, June 26th to July 1st, 1911.)

UROLOGISTS are united in attributing ninety per cent. of the cases of chronic urethritis, and of recurrent urethritis to chronic inflammation of the posterior urethra, prostate and seminal vesicles. (Rarely is the upper urinary way the source of reinfection in the male.) Pathologic changes in the anterior urethra as stricture and involvement of the glands and follicles are, too, responsible for renewed attacks.

Preliminary to treatment it is necessary to point out concisely the anatomico-pathologic changes resulting from gonococcic invasion of the urethral adnexa.

That we may appreciate how a discharge containing gono-

cocci reaches the prostate, seminal vesicles, epididymis, bladder and kidneys, it becomes necessary to review slightly the topography of the urethra. It is divided into two portions by the compressor urethra. The discharge may be carried beyond this muscle either through indifferent or from too vigorous treatment. It will be seen then that there are two avenues, the genital and the urinary, that may become involved. The bladder is infrequently infected because of the character of its epithelium. Rarer are involvements of the kidneys the direct result of ascending gonorrheal ureteritis.

It is perfectly easy to understand how the disease reaches the genital tract. The prostatic portion of the urethra passes through the prostate gland from its base to its apex. On its floor is a narrow ridge, the *veru monatum*, on each side of which is the prostatic sinus, the floor of which is perforated by the orifices of the prostatic ducts. The pus finds its way from the prostatic urethra by means of the excretory ducts (rarely the pus is limited to a single duct) into the substance of the prostate, affecting one or more of its lobules, the number being determined by the number of excretory ducts involved, since each duct drains a single lobule of the prostate. As a result, these ducts become occluded and pus forms; thus we may have one or more circumscribed abscesses, or abscesses affecting several parts of the prostate, disseminated abscesses, varying in size from a pea to one containing half a cupful of pus. These may rupture and unite to form one large abscess cavity which may cause general destruction of tissue.

The course of pus within the prostate depends largely upon the extent of tissue involved. When one or more follicles are infected, resolution may occur. When, however, several are involved, they may coalesce, break down and form a large abscess which, unless treated surgically, becomes the sole reason for the continuance of a chronic urethral discharge, the posterior urethra being constantly reinfected by the ducts discharging their contents within the canal or through the medium of the ejaculatory ducts, cause chronic inflammation of the seminal vesicles, thus constituting what Belfield terms "pus tubes in the male." Occasionally these minute abscesses rupture and discharge into the urethra or are ruptured during rectal or urethral manipulation, or pus may extend through the capsule and form a peri-prostatic abscess or be complicated by suppurative cowperitis and perineal abscess or, it may burrow

into the ischio-rectal fossa, the bladder or the rectum, leaving one or more intractable fistulæ, or it may burrow more extensively into any of the surrounding tissues or cause death by pyæmia.

The seminal vesicles also become infected through the ejaculatory ducts. Gonorrhœa causes tissue changes not only in the vesical walls, but also occasionally in the spaces between and about them, producing a peri-vesiculitis. Both vesicles are usually attacked, causing alterations in their chambers, their secretions as well as their contents. The ejaculatory ducts are usually involved and in some instances the prostate participates in the morbid process. The vesicles may be dilated or become atrophied by contraction of the newly formed tissue. Their contents undergo a puriform degeneration. Microscopical examination shows dead spermatozoa.

The inflammation extends throughout the vas deferens and down into the epididymis. The epididymis becomes enlarged, hard and nodular. Usually the tail of the organ is attacked. In addition we have a varying amount of fluid in the tunica vaginalis which leads to the formation of chronic hydrocele. The vas is thickened and inflamed. This is serious since it results in sterility by blocking the vas deferens and preventing the transmission of spermatozoa.

Not infrequently tuberculosis of the organ follows. It must not be imagined that in chronic residual gonorrhea we have but one organ involved, as prostate or epididymis. Not infrequently we have to treat the entire uro-genital tract.

How may we cure? James C. Wood,* a distinguished surgeon, in an article, "The Tragedy of the Gonococcus," says in part:

"The whole problem of sexual relations and their consequences may be solved in the family and by the individual rather than in the legislative halls and by the State. This being so, we, the medical profession, should enter upon a campaign of education, far-reaching and thorough. I submit for your consideration the following propositions:

1. The youth of our land should be instructed by competent instructors in the nature and sequelæ of venereal disease, as well as all matters pertaining to sex physiology and hygiene.

2. After venereal disease has been contracted, young men should be impressed with the fact that they are morally, if not

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legally, reprehensible in contracting marriage before a cure is absolute.

3. The general practitioner should take greater precaution than he ordinarily takes in assuring himself that his patient, the victim of gonorrhea, is cured beyond all possible doubt before he permits him to marry."

To which I may add:

4. The legislature of each State should appoint a committee to deal with this problem. (This is in accord with the efforts made by James C. Wood.)

Naturally the time allowed me precludes delving deeply into all methods by which chronic gonorrhea may be combated.

Let us first discuss the treatment of prostatic involvement:

For each type there are certain lines of treatment. Chronic inflammation of the prostatic urethra demands measures that will allay urinary and sexual symptoms. Such may be obtained by pressure with Guyon's posterior dilator and by endoscopic and instillation treatment.

The dilator is anointed with lubricene and passed very carefully into the bladder. Its wheel is then slowly and carefully turned until the patient experiences slight distress. It should then be screwed down about two millimeters and the patient, (who has been made comfortable by lying in a semi-recumbent position on an upholstered table), is instructed to hold it. This instrument is held in position three minutes, after which its branches are closed, it should then be most carefully withdrawn. The bladder should then be irrigated with 1:6000 solution of silver nitrate, otherwise infection may follow. This procedure may be repeated every fifth day, unless contra-indications such as urinary fever or frequency of urination develop. Gradually increase at each sitting both the duration and the degree of dilatation. Instillations of Nitrate of Silver, 1-2 grain to the ounce, may be given by the author's syringe, repeating every third day. Topical applications of sulphate of copper, grains two to the ounce, in glycerine may also be made every third day through an Oberlander urethroscopic tube.

Massage of the prostate is one of the best therapeutic measures that we have at our command. It is beneficial because it reduces congestion by expressing from the diseased organ its morbid products. It stimulates the tissues, increases circulation and causes an absorption of inflammatory exudate. The

finger, well lubricated, should exert firm pressure on each segment of the gland. It will be noticed during the milking process that a considerable amount of secretion from the prostate and seminal vesicles exudes from the meatus. The treatment should last about one minute, and should be repeated about every four days. More frequent milkings are apt to cause local irritation. After massage, he should urinate into test tubes. We can then examine this secretion microscopically. Bladder irrigations should always follow. Bacteriuria frequently follows prostatic massage.

There are some cases particularly of a chronic, diffuse type, some a combination of all types to which varying degrees of suppuration have been added, that fail to respond to any of these methods of treatment. In such cases a cure may be obtained by perineal section. Since during operation small abscess cavities may be evacuated. By this means an avenue is afforded for drainage, so necessary to recovery. In chronic suppuration, it may even be advisable to attempt entire enucleation and I have often cured by partial (or complete) prostatectomy. This procedure has the endorsement of Alexander and Young.

The treatment of chronic seminal vesiculitis may be sometimes accomplished by massage or stripping followed by bladder irrigations. The technic is the same as used for prostatic massage.

The stripping process is in some instances followed by pain, both local and reflex. Subsequent treatments should not be repeated until after all inflammatory changes have disappeared; this takes about four days. The average period of time required to effect a cure may be placed at from five to six months; in some aggravated cases even longer.

And where not only the seminal vesicles are involved but also the outlying tissues of the post prostatic space, sometimes cures are never made. This led Fuller* to attempt seminal vesiculotomy. Fuller claims that all of the symptoms referring to the urinary, genital or nervous system yield to this treatment. The urinary symptoms consisting of chronic or recurrent urethral discharge, pus, bacteria in the urine and disorders of urination are frequently relieved. Its results are very gratifying, inasmuch as it furnishes immediate drainage of the sem-

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inal vesicles and post prostatic space. It is particularly efficacious in rheumatism of gonorrheal origin.

At first I was inclined to doubt its efficacy. After witnessing several operations and making a few on selected cases, I fully endorse it.

Because of the poor results following the mechanical and internal treatment of seminal vesiculitis, Belfield* advocates vasostomy for the various pus infections of the vesicle, vas, posterior urethra, ejaculatory ducts and epididymis. He claims that he has met with steady improvement.

The arguments advanced for its employment are:

1. Pus infections of the seminal tract plus occlusion of the ejaculatory ducts soon converts vesicle, vas and finally the epididymis into a closed abscess.

2. Vasostomy is the simplest and least objectionable means of evacuating pus, relieving tension and medicating vas and vesicle.

3. Among the effects of these infections on the urinary organs are bladder irritation and obstruction of the ureter with consequent kidney lesions.

4. Impotence, sterility and sexual neuroses in the male are frequent results of pus infections of the seminal tract and amenable to appropriate treatment thereof.

The technic is as follows:

The vas is held by the fingers against the skin of the scrotum near the median line, while a half curved needle is passed through the skin under the vas. A half inch incision exposes the vas, a transverse or longitudinal incision into the vas opens the canal. The blunt needle of a hypodermic syringe can be passed into this minute canal, and a watery solution, 1-6000 nitrate of silver injected; this liquid traverses the vas and ampulla and enters the seminal vesicles. A fine silk worm gut suture is passed into the lumen of the canal at each extremity of the incision and cut through the wall of the vas a quarter of an inch or more distant; one suture end is then passed through the skin and the two ends tied loosely outside. This suture entering the lumen of the proximal end serves to guide the needle when daily injections are made. When restoration of the canal is desired, the silk worm suture is tightened so as to oppose the cut ends; when the wound is healed, the suture is removed. Restoration of the lumen of an occluded vas is ac-

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complished by excising the occluded portion and suturing the divided ends in the same way; the lumen of the vas is maintained during the healing by the thread within it.

Although I have had fair results in some cases, yet in others occlusion of the vas resulted.

The treatment of chronic epididymitis may not have to be attempted if the acute form is treated surgically. The operation which Hagner devised consists in an incision through the skin of the scrotum and through the tunica vaginalis directly into the inflamed epididymis, the patient being under the influence of a general anæsthetic. Subsequently the agonizing pain is immediately relieved, the fever disappears and the leucocyte count is lowered. The semi-niferous tubules are injured so slightly, if at all, that upon complete restitution the testicle is left unimpaired. Pus-foci are not always discoverable, but in some instances appear as miliary points. Hagner makes the further claim that induration disappears rapidly and that the urethral discharge decreases.

I also employ this operation having had most gratifying results from it.

Medicinal measures are valueless in relieving sterility in the male. Edward Martin,* of Philadelphia, must be given the credit of first suggesting an operation, (epididymo-vasostomy) for the relief of this condition.

The operation was first performed on dogs with good results. It was first practiced on a human being on December 24th, 1901, whose childless marriage was absolutely dependent upon azoospermia consequent upon obliterating epididymitis and chronic posterior urethritis.

The patient then resumed marital relations on January 9th, and on October 17th, 281 days later, his wife was delivered of a normal girl baby, who then had and has since exhibited a striking resemblance to her father. It was then completely established that an anastomosis could be made between the vas and the epididymis, and that spermatozoa coming from the upper part of the epididymis were fertile.

The technic of the operation is as follows: "I have usually made a lateral anastomosis, but in some cases have cut the vas off, split its end, and then sewn this split end into the epididymis, finding this an easier procedure. Before making the anastomosis, the milky fluid exuding from the epididymis is exam-

**Therapeutic Gazette*, December, 1909.

ined for spermatozoa, and if these are not found, the section is made near the testicle. In one instance followed by complete success this section was made in the region of the rete testis. As a rule, no ligatures are required, care in handling of the veins insures the absence of thrombosis, and the application of an elastic jock strap enables the patient to go about his occupation immediately upon recovering from the effects of the ether. Because of this fact and because patients have not always given the names by which they are known, it has been impossible to follow a number of cases." Success has been remarkable; spermatozoa appearing in the discharge.

As to the treatment of chronic gonorrhœa by bacterial emulsions or anti-gonococcic serums, I must confess I have been disappointed. In support of this statement, Mackinney* says: "To be brief in stating results, they may be summarized with the statement that bacterial vaccines have not demonstrated their value in the treatment of acute or chronic gonorrhea or in the treatment of its acute complications. In conclusion the author states that, from his experience, neither the anti-gonococcic serum nor the bacterial emulsions have a place in the therapy of acute or chronic gonorrhea nor have they demonstrated their value in the treatment of the acute inflammatory complications such as prostatitis, epididymitis or cowperitis."

Homœopathic remedies will unquestionably relieve the symptoms associated with the conditions I have just described.

Should anyone question these measures as too radical, I would say that they have been attempted only when other measures have failed.

Gynæcologists agree that eighty to ninety per cent. of the surgical operations on women are due to the effects of chronic gonorrhœa.

Ophthalmia neonatorum is a direct sequence of the disease. Therefore there is every reason why this subject should be treated seriously in the lay as well as the medical press and why legislation should be enacted for its eradication; why it should be made a crime for anyone afflicted with the disease to contemplate matrimony until they have been pronounced cured by competent gynæcologists or genito-urinary specialists.

Because, it is to be distinctly understood that a man is by no means cured even when the discharge ceases and the urine is clear and sparkling. In many instances, five hours after giv-

**Pennsylvania Medical Record*, January, 1911.

ing an injection of a one per cent. solution of silver nitrate and massage of the prostate and seminal vesicles, a urethral discharge containing gonococci and other bacteria has re-appeared. Consequently, it has always been my custom, before a man is pronounced cured, to submit him to the following tests:

1. I endeavor to produce a discharge by an injection of a one per cent. solution of silver nitrate, repeating this twice a week until a discharge appears.
2. Carefully examine this discharge for the presence of any bacteria.
3. Massage the prostate and seminal vesicles at repeated intervals subjecting their contents to microscopic scrutiny.
4. In those who are accustomed to alcohol, I may allow champagne and beer to see what effect these drugs may have on reviving organisms.
5. I also employ urethroscopy to find involvement of the crypts, follicles and glands of the urethra.
6. When necessary, cystoscopy is made.
7. Occasionally, it may be advisable to attempt a culture of gonococci.

Failing to produce a discharge, or in the event of provoking one not finding any infecting organisms, I would pronounce the patient cured.

CHLOROFORM AS A THERAPEUTIC AGENT.—Dr. A. A. Beale, in the *Homoeopathic World* (London) for May, reports several cases in which he used chloroform with good results. He has used it in infantile convulsions, asthma, delirium tremens, catalepsy and typhoid delirium and sleeplessness. In each case anesthesia was produced and the patient came out of the sleep so induced much benefited. He says: "In conclusion the conviction comes home that in all cases where spasmodic tension exists and in those where rest is required for a worn-out brain, a trial of chloroform anesthesia will certainly repay the physician and bring out gratitude from the patient and friends. In such cases as meningitis, for instance, might well be tried, and how far the effect might lead to permanent benefit is impossible to say, but in any case of sleepless delirium the writer would consider himself terribly negligent in refusing the patient this great comfort and help."

Transactions of the Homoeopathic Medical Society of the State of Pennsylvania

BUREAU OF OBSTETRICS

ANNA D. VARNER, M. D., Chairman

POST-PARTUM HEMORRHAGE.

BY

ANNA JOHNSTON, M. D., PITTSBURGH.

ONE writer speaking of this subject says: "I thought I understood it thoroughly, but for a surprise this is the greatest event in a physician's life to try his nerves, to make him think quickly, to test his level headedness, and to act."

In my own obstetrical experience I have had but few cases of hemorrhage, and none very serious—whether this is by good luck or good management, I do not know, but I hope the latter. For in all cases I maintain a close supervision through the whole period and thus use "the ounce of prevention."

One of our celebrated French obstetricians who has made a careful study of the uterus of the pregnant woman says the production of hemorrhagic accidents is singularly favored by the double circulation of which it is the seat, by the great development of the uterine vascular apparatus, and by the peculiar structure of the utero-placental vessels.

We find during the later months of gestation the trunks of the four arteries that nourish the uterus have increased in size, and their divisions and ramifications in the uterus are wonderfully multiplied.

The walls of the arteries are very feeble, consisting of but a single coat.

Also, at the close of pregnancy the uterus is formed of three evident muscular layers, with the vascular one. This triple muscular layer, may, under the influence of various external and internal irritants become affected with spasms, which produce irregular contractions in some part of the organ.

These contractions are very frequent after the third month,

often noticed after external, moral, or physical impressions, or the tumultuous movements of the foetus.

These contractions frequently accompany the hemorrhage, and some times precede it, and must be regarded as an active cause in producing it; as it is impossible for any contraction to take place in the external muscular layer, without modifying the circulation in the external vascular one. So, when the vascular plexus of this intra-uterine lamina is irregularly compressed by the muscular contractions of the organ, the flow must go back into the placental disk, thus producing a partial congestion and may cause a rupture of one of the feeble venous ramifications, resulting in a bloody extravasation.

Another predisposing cause is found in the plethoric woman, with her full pulse and flushed face; and the increased activity of nutrition and circulation in the early months of gestation. It is with this class of women we have profuse menstruation, even to flooding at return of periods, which give evidence of an habitual state of congestion of uterus.

It is not quite so easy to give the immediate causes.

The least excitement in nervous patients may produce a hemorrhage. The abnormal attachment of the placenta, rupture of umbilical cord, which, may be produced by some diseased condition of the vascular tunics, by a particular arrangement of the vessels; by its being too short, providing the movements of the foetus are very active.

The cellulo-vascular attachments of the placenta may be destroyed by sudden and rapid contraction of the uterus producing a very profuse hemorrhage, as this contraction causes the too early separation of the placenta. This may happen after the expulsion of the first child in twin pregnancies.

Symptoms.—Often the first symptom we have is the hemorrhage, which may come with a gush, or one spurt after another, or a slow, persistent flow, which will soon deplete the patient.

A secondary hemorrhage may occur if there has been a retention of the secundines, or a coagulum, or any interruption of the involution.

Too much care cannot be exercised in the removal of the placenta or its examination afterwards to see if it is intact.

The placenta-succenturia has been known to exist in very rare cases. In such cases only the most careful inspection of

the uterus would reveal it. If left, it may produce hemorrhage or septicæmia or both.

Prognosis.—The prognosis depends upon the amount of blood lost, and the rapidity of the discharge, as well as upon the powers of endurance of the patient.

After a severe hemorrhage, the patient is much more susceptible to septicæmia, also her general health may be so broken down that she may be more or less of an invalid for many years.

Treatment.—It is not always possible to know the source of the hemorrhage, but if it comes on before the expulsion of the placenta, it is most probably the result of a deep laceration of the cervix.

The immediate repair of this laceration is necessary.

If portions of the placenta are retained, the hemorrhage is clotted, and comes in gushes which accompany the uterine contraction.

In this case detach the placenta with the fingers, if loose within the uterine cavity, withdraw carefully, being sure that all secundines and clots are cleared out.

If there is a continuous flow, non-clotted, very profuse, it is due to atony of uterus. This is generally the most dangerous form of hemorrhage, requiring quick thinking and acting on the physician's part.

Raise the foot of the bed, make firm compression on the uterus, by grasping the uterus through abdominal walls with one hand, while the other hand is extended into the vagina pressing the organ between them.

If there is a serious state of collapse the hot saline injection will be of great benefit, not alone from its stimulating effect, but helps in the contractions of the uterus.

Hot intrauterine douche of lysol, 1 dr. to the quart, temperature 108 to 120 degrees, or use of the faradic current. Ice has been used by some with good results. Simply passing lumps of ice into the uterus, produces contractions immediately.

Perchloride of iron is advocated by some physicians, while others condemn its use, saying it may leave serious results.

Ergot is used extensively by the other school, and many of our own physicians advocate its use, preferring its being used hypodermically. Dose, 30 minims of fluid extract.

Dr. Krusue says that the fluid extract of ergot is not to be

compared with the action of ipecac, china, sabina, trillium and secale in potencies.

I agree with the doctor, so my last word is that to be thoroughly equipped for these dread emergencies of parturition we must carry the indications of the remedies that cover the cases in our heads, as well as to have all the necessary paraphernalia in our obstetric bag.

DISCUSSION OF DR. JOHNSTON'S PAPER.

DR. WOOLRIDGE: I have heard much of giving the indicated remedy and waiting for it to act, and recently I had a chance to try it. Post-partum hemorrhage is usually caused by one of two things; some mechanical injury or a condition of the blood that makes coagulation impossible. If the hemorrhage is due to a mechanical injury, I don't think the remedies are worth very much. If you remove the cause the hemorrhage will stop. If the blood is in such a condition that it will not clot, I think the remedy is very useful; and I would like to briefly report a case that I had two weeks ago. A woman had a perfectly normal delivery, but the blood did not clot. Three hours after the patient was delivered she went into a collapse; and while the amount of blood lost was small, yet it was persistent. This case seemed to call for a homœopathic remedy, which she received; but I must confess that I didn't have the nerve to sit there and watch the remedy act. I felt that operating on the uterus was out of the question, so I sent for an experienced practitioner; and it warmed me up considerably to have him say: "Just wait." Four hours later she began to respond and the bleeding ceased. The remedy given in that case was china, and from the time she got it she ceased to grow worse, and has had an uninterrupted recovery. I gave the second dilution, about five drops in a half a glass of water.

DR. THEODORE J. GRAMM: This subject of post-partum hemorrhage has been one that has interested me for a long time and whenever the subject is brought up in a homœopathic society the question arises as to just what is our duty as homœopathic physicians on the one hand, and as obstetricians irrespective of therapeutic beliefs on the other. And I

declare I don't really know how the subject can be properly and fully formulated at present. I don't deny the marvelous, and marvelously prompt, action of the homoeopathic drug; but I shall never forget, on the other hand, the address that was probably made by my predecessor in the college, Dr. Mitchell, who described in his most pointed way, characteristic of himself, the experiences that one will pass through when he sees a woman who really has a post-partum hemorrhage; that is to say, an abnormal discharge of blood, and not one that is well within the limits of the norm. He has pointed out, and it has been the experience of members of this Society, that it is possible in a post-partum hemorrhage for a woman to be dead before it is possible for you to do very much in the way of waiting for the dynamic action of your drug. Now that fact above all others, in the consideration of post-partum hemorrhage, we should keep in mind; and therefore I have been constrained to advocate, if possible to determine the cause of hemorrhage and treat it accordingly—and in view of the fact that the woman's life is urgently in danger, to use those means which are likely to bring about a cessation of that flow; and they will usually consist in something else than the administration and waiting for the action of homoeopathic drugs.

I confess that I regret to be compelled to state the matter just that way. I wish that I could state my belief in different terms. Now, those methods to be applied in a case of post-partum hemorrhage are: in the first place, the emptying of the uterus. You will not go wrong, in my belief, if you proceed upon the supposition that there is something contained in the uterus which must come out. That may be a clot; it may be a portion of the placenta; and the removal of the foreign body which prevents the uterus from contracting by virtue of inducing an irritation that counteracts the normal tendency of the uterus to contract. I believe it is our duty to remove any foreign substance which is in the uterus, any substance which in this instance or on this occasion is foreign. That, in the majority of cases, will permit the uterus to perform its function just at that time, namely: to contract. And I believe that the other indication for us is the administration of a drug acting in a physiological rather than in a dynamic way; and, of course, we naturally think of ergot. Personally I use ergotol; and I use it hypodermically. I believe that this preparation is one

that is more fixed and one that is more certain in its action than the ordinary preparations of the fluid extract.

There is, of course, another drug which has been claimed to possess qualities almost equal to this drug; and that is, strychnia. With these two methods of treating these cases, first of all to assume that there is something in the uterus and, in the second place, to administer a drug which will act promptly, even though in a physiological way rather than a dynamic, I believe we are fulfilling the indication.

Now, I think that the state of medical information concerning this subject, particularly as including the dynamic action of drugs, is not so far advanced yet, that we can, for example, take what I regard to be a most untenable position, namely; to say that a homeopathic physician who uses these physiologically acting drugs is not practicing within the domain of the homeopathic law. Perhaps I should qualify and say, more broadly, that he is remiss in his adherence to his profession as a homeopathic physician. In other words, this subject brings up the very great question of the actual applicability of homeopathic law in diseases. Personally I believe that there are conditions in which the homeopathic law is not applicable. If the time shall come when we have our indications so clearly defined, and when men can be quickly informed as to the actual physical and pathological condition present in a case so that he may readily determine that this is a case for a dynamically acting drug, then, of course, we should be ready to abandon the use of ergot; but I don't think it wise to teach our students that they are unloyal to the profession of the practice of the homeopathic law of cure if they use ergot.

DR. PURSELL: I would like to ask Dr. Gramm his manner of procedure with the uterus.

DR. THEODORE J. GRAMM: I am not able to say that I have a procedure. I would say that my first procedure would be to prevent it, if possible, by having an oversight over just exactly how labor is progressing, and also the time during which the labor is continued. And then as regards emptying the uterus, it is, in the presence of a post-partum hemorrhage that is serious, not a matter of delicate manipulation, but simply, introduce the hand and sweep it around in the open uterus, and removing clots which are removable and readily felt. The cervix then being patulous, the uterus will contract, particularly if aided by pressure upon the fundus.

DR. BOWIE: I have had some experience in treating the disease under consideration, but principally with the homeopathically indicated remedy. I have no use for a repertory in any case of post-partum hemorrhage. It would not do me a bit of good. I have used *secale comutum*, but only when homeopathically indicated. I have used ipecac frequently, but only when indicated. I have used belladonna, only when it was homeopathically indicated; but I use a little common sense mixed up with the remedy; and sometimes you have to use a little mechanical aid, with your hand; and that is all that is necessary.

PREMATURE BIRTHS.

BY

J. M. HEIMBACH, M. D.

By premature births I have special reference to those after six months of gestation, or the time of birth when it is possible to save the life of the foetus.

Causes of Premature Labor.—These are necessarily maternal and foetal, the former outdoing the latter. Syphilis is the major constitutional cause. Lead poisoning, tobacco poisoning, heart disease and tuberculosis claim a certain number of cases.

It is a difficult matter to make positive assertions in regard to some etiological factors, because many mothers under similar conditions go to full term without even feeling any apparent discomfort.

Infectious diseases, such as small-pox and typhoid fever, often cause miscarriage, in fact, so frequently that some practitioners induce labor in the earlier days of the infection, yet a good many women made good recoveries and go to full term.

A severe nervous shock has brought about premature labor, likewise reflex influences from neighboring organs, as well as diseases of the uterine walls. Uterine fibromata may precipitate labor at any time.

I am convinced that gonorrhœa claims a certain number of victims, either by its local ravages or by its constitutional ef-

fects. Any of the debilitating diseases like consumption, scrofula, cancer and anæmia may exert abortive influences; yet many women having one or more such diseases go to full term. Consumptive women are often very prolific. All constitutional diseases leave their impression on the physical forces of the foetus even though they go to full term.

Local conditions in the pelvis of the mother are frequent causes. Statistics prove that premature labor is much more frequent in multiparæ than in primiparæ, which shows that first pregnancies are not so apt to be interrupted because more natural conditions prevail; whereas, disturbed uterine conditions, such as endometritis and diseased appendages, which are more liable to be established during the reproductive period, often interfere with the harmonious development between the uterus and foetus and thus frequently precipitate premature labor.

Albuminuria and eclampsia have caused expulsion. I had one case that miscarried about the eighth month in her third pregnancy on account of albuminuria, although she went to full term in her first pregnancy and had convulsions during labor and gave birth to a second child without any special disturbance.

Mechanical injuries of any kind as well as direct traumatism often induce labor. Hemorrhage between foetal and maternal layers of the placenta, whether due to direct violence such as falls, blows, or disease of either or both may produce uterine irritation and bring on premature expulsion.

Placenta previa as well as persistent vomiting are causative agents. Some claim severe cervical lacerations are a menace to conception and provoke miscarriage. This I doubt. In the first place the cervix is not the pedestal on which the foetus rests. The embryo finds lodgment in the folds of the endometrium and makes considerable growths before it ever comes in contact with the cervix. The cervix rests on the pelvic floor when the uterus is heavy enough to carry itself down, and it usually is. If such is the case the pelvic floor would furnish the resting place. I have examined women in the last month of pregnancy who had a dilated cervix as big as a silver dollar yet went to full term without realizing that such was the case. I also attended women who told me they were informed that they could not go to full term on account of lacerations of the cervix, yet they went to full term. I have no doubt in my

mind that most of you here had similar experiences where even the pelvic floor was so relaxed or torn that you could not place a pessary, yet would get pregnant and go to full term. It is the body of the uterus that means more to a full term pregnancy than either cervix or pelvic floor.

It is hard to conceive that there should be such a thing as habitual miscarrying at a certain period, and is, indeed, questionable in my mind whether such is the case. I recall two cases that I could not account for in any other way, unless they were gonorrhœal in origin. One of them miscarried twice at the seventh month. When she became pregnant the third time I was made aware of it between the sixth and seventh month, and this time she went to full term even though it was a case of placenta previa.

The other miscarried for the third time about the seventh month. The first child lived about eight months and died of inanition. The second was about two weeks younger and only lived a few hours. The last was a transverse position and I had to produce podalic version and it lived eight hours. In both instances the mother seemed to be perfectly well. If it was habitual, how about the first time before there was an opportunity to form a habit?

Fœtal Causes.—Abnormal conditions of the fœtus such as hydrocephalus, hydrothorax, ascites or any morbid out-growths, are not associated with any disease of the mother, yet often cause premature labor. Diseased conditions of the fœtus may set up uterine contractions causing expulsion at any time.

The placenta is also liable to disease the latter months of gestation. If we take into consideration the delicate construction of the placenta and its relation to the uterus, as well as the delicate function in supplying nutriment to and affording drainage at the same time from the fœtus, it is not hard to conceive how little disturbance in the physiological relationship between placenta and uterus is needed to menace pregnancy. I will only mention induction of labor before full term to state that this is often done on account of maternal conditions to save the life of both infant and mother. I will not discuss criminal inductions in this paper.

Symptoms.—Symptoms of premature labor do not differ materially from those at full term. Hemorrhage and uterine contracting pains are the two prominent symptoms and should

arouse suspicion at once in the latter months of gestation. They could hardly be mistaken for any other condition.

These symptoms are sometimes preceded with a chill. If the contracting pains begin in the back and come around the hips and pass down the groins they have a peculiar significance of an expulsive effort showing that the uterus is contracting on some solid body, the nature of which can only be determined by digital examination and should be insisted on at all times.

The pulse and temperature are variable and depend largely upon the cause, but the pulse is usually rapid. If a chill ushers in these symptoms it invariably means expulsion, and if accompanied by escaping amniotic fluid it is a sure indication that the sac is ruptured and a severance of placental and uterine relationship instituted.

Escape of the amniotic fluid usually ends pregnancy. A mistake in judgment on the part of the patient may be misleading. A patient may have a large escape of fluid and not be from the sac which holds the fœtus. It may be from a sac that was an independent outgrowth from the external surface of the placenta that ruptured or a free voiding of urine. I have had women tell me that they lost the water, as they called it, and found the sac intact and *vice versa*.

Treatment.—Absolute rest and the best hygienic care is necessary to check the threatened mishap. Viburnum in material doses may act as a uterine sedative and I know that it helped me out in several cases where they had considerable uterine contraction.

Thuja helped me out in one case particularly at the seventh month and prevented abortion at the third and fourth month in several other cases. I based my prescription more on their symptom picture than any thing else and it was a question whether the gonorrhœal miasm was not the causative factor in the case although I could not get such a history.

Applications of heat to the spinal column at the dorso-lumbar junction together with opiates to enjoin perfect rest are often trustworthy.

When expulsion becomes imminent, you must treat them like any labor case at full term. It is very seldom that such cases call for instrumental aid, because the foetal head is soft and small. The only manual aid I ever had occasion to give was in a transverse position, where podalic version was easily accomplished and the child delivered at six and one-half

months. The child did not show any signs of life at first, but soon developed a husky cry and lived for eight hours.

In case of hemorrhage, sufficient to demand your special attention, empty the uterus as quickly as possible by a method consistent with the cause of such bleeding.

The infant now demands our attention, and it was a question to me whether I should hand it over to the pedologist and call this paper finished or continue the task of caring for it, as would naturally suggest itself when you tie off the cord and hand it over to the nurse.

It is often hard to tell the exact age of the infant when born. Information from the mother is often unreliable, from lack of knowledge by some or intentional deception by others. There are no characteristic appearances in the development of the infant by which we can exactly state the age when born. The weight, length and development vary too much for a given duration of gestation and statistics given are only approximate, yet of sufficient value to guide us to some extent in their management. If born alive we must endeavor without regard to size or characteristics to preserve its existence.

The general characteristics in a premature child are as follows: The head is large in proportion to the body, the abdomen is prominent, the child is weak in its movements, vitality is low and body limp, and looks old, emaciated and shriveled up.

A foetus of twenty-four weeks intra-uterine life very seldom lives more than a few days, and more likely only a few minutes or hours. If they do, there has been miscalculation. The body is covered with lanugo or down and has very little subcutaneous fat. The length is about eleven to thirteen and one-half inches.

At twenty-eight weeks it measures thirteen to fifteen inches and weighs about forty-one ounces. The soles and palms are no longer covered with down, the pupillary membrane, which hitherto obscured the pupil, has now disappeared. The skin is very much wrinkled and the child in general very much emaciated. A twenty-eight week child can live, but most of them die.

The blood of such children has very little resisting power to disease. It has a small percentage of leucocytes. They bleed very easily.

The possibility of a seven month child being more liable to

live than an eight month child is only laity and antiquated practitioners' talk. The nearer full term the child is delivered the more advanced are the development and functions of the vital organs and likewise its chances of living are greater.

At the thirty-second week the foetus measures about fifteen to sixteen inches and weighs about three and a half pounds. The child is beginning to lose its senile appearance. The down on the face has disappeared and the hair on the head is getting longer, and with proper care the child ought to live. At the thirty-sixth week it measures sixteen to seventeen inches and weighs about four and one-half pounds. Its body is now rounding out more and getting stronger. The bones of the head are still soft and very compressible, and in condition that requires the best of care to save life. The fontanelles are wide open and the head is easily molded temporarily and it is at this time the obstetrician often takes advantage to induce labor in case of pelvic deformities. This compressibility of the head should be remembered and the position of the child changed from day to day to prevent permanent deformity.

The nails are soft and short, the skin is brownish red and is liable to get erythematous rashes and invariably icteric after it is a few days old. If they don't do well, the skin is pale and white, dry and scaly. The veins show through the skin very prominently.

The gastro-enteric tract is poorly developed and as a rule unable to digest and absorb sufficient nutriment to meet the demand of extra-uterine life. The amylolytic function is as yet not developed and should not be depended upon to digest any starches. Sugars are easily absorbed and most needed to keep up the bodily temperature, which is so easily lowered in premature children. The capacity to digest fats and albuminoids is far inferior to a full term child; hence food formulæ should contain very low percentages of these ingredients until the alimentary canal gets accustomed to its work. Even breast milk should be diluted for some days after birth.

The muscular development of the intestines is poor, with consequent weak peristalsis and constipation.

The heart is large in proportion, yet weak; therefore, the child should be kept quiet and there should be as little circulatory excitement as possible. The hemoglobin is held loosely in the red cells and easily destroyed, and very slowly manufactured.

The heat centre is suddenly called upon to maintain a normal temperature when combustion is slow and radiation rapid. It has a hard time to maintain its equilibrium and spasmodically fluctuates up and down.

The lungs are poorly developed and are very sensitive and easily become inflamed, in fact, the whole respiratory tract from the nose down. The tissues have very little resisting power to disease. The respiratory movements are feeble and hypostasis easily takes place in the posterior and inferior portions. Atelectasis is frequently the cause of death.

The liver is very large and great quantities of bile are secreted.

The kidneys do their work very irregularly. They frequently don't secrete for the first few days. Uric acid is in excess and stains the napkins pink.

Prognosis.—We must base our prognosis more upon the general appearance of the child at birth than upon its size. It is more favorable the nearer it is born at full term. A steady gain of the child from week to week gives you the best idea of its progress. These children always lose more the first ten days than when born at term. It usually takes them about four weeks to regain their first weight.

Treatment.—You must maintain a proper temperature, keep them quiet to prevent exhaustion, give them the right kind of food and proper amount and prevent infection.

Where possible an incubator should be used, otherwise the child should be wrapped in cotton and surrounded by hot bottles or placed near a stove. If not too premature, a good many will thrive. I had several that were born at seven months and others a little over that grew up very nicely and now are strong, healthy children.

I will not enter upon a discussion of incubators and how they are manufactured, but there are a number on the market that are equally good. Suffice it to say that they must be kept sterile to prevent infection. They must maintain an equal temperature and possess good ventilation.

The incubator or bottle-heat treatment must be kept up until full term development is attained, and longer if necessary. The temperature should be gradually lowered until the nursery temperature is reached.

The nourishment should consist of a five or six per cent. of lactose in distilled water, not more than a drachm every hour.

About two days should be appropriated to this kind of diet, after which an equal quantity of breast milk should be added. The amount is to be gradually increased so that the child will not take more than an ounce every hour at the end of a week. The sugar should be gradually decreased and with the addition of a little lime water the child may be able to take pure breast milk.

It should be given with a small nipple or dropper, and in extreme weakness the stomach tube will have to be used. As soon as the child gets strong enough, it can be given the breast a few times a day and the feedings put two and three hours apart.

Dr. Rotch claims better results from laboratory milk. This does not look feasible to me. Mother's milk is the ideal food for infants at all times when it is all right and used in proper relation to the birth of the child.

John S. Adriance has demonstrated the composition of human milk at various periods of lactation from which we can deduct valuable conclusions, especially in regard to feeding the premature child. We all have noticed the alimentary disturbances the first few days of a mature child's existence when everything seemed normal. His studies show that the irregularities are most marked the first few days of lactation. The colostrum has a small per cent. of sugar the first few days. The amount of fat is very variable. It is rich in proteids when the mammary function is suddenly assumed and this milk should not be used to feed a premature child. This excess of proteids lasts longer in premature labor than full term, and the child should nurse a wet nurse whose mammary function is well established for a few weeks at least, if such a nurse can be had.

During this time the mother's breasts should be pumped and massaged to retain their function.

In my own child, who arrived six weeks prematurely, I tried a wet nurse as well as a number of things, but he kept losing, having no capacity to digest proteids at all. He weighed eight pounds when born and lost nearly three pounds. Death seemed imminent within twenty-four hours, when the idea of removing the curd suggested itself to me. I started to give him whey made from rennet tablets. The first feeding showed an improvement, and he soon started to increase in weight. After the stools were entirely free from curds, I started to add

a little cream to the whey and later milk and cream, according to the child's capacity to digest until he had regained his original weight, when I changed to Mellin's food. He is now a little past two years old and there is no finer specimen of a two-year-old child anywhere.

Daily rubbing of olive oil over the whole body is very important. The skin absorbs it freely and not only helps to nourish the body, but keeps the skin in a perfect healthy condition to perform its function. The olive oil rub should be used instead of the bath as much as possible.

These children need the greatest amount of care and attention. They need to be watched all the time. In case of cyanosis a little stimulation or slapping to cause them to cry a little or the administration of oxygen will cause the blueness to disappear.

Cleanliness and disinfection and filtered air is very necessary to prevent infection. It requires a nurse who does not possess the word "carelessness" in her vocabulary as far as herself and anything pertaining to the baby is concerned. She must be willing to assume charge and give her undivided attention to this delicate little mortal.

BUREAU OF SURGERY

E. H. POND, M. D., Chairman

IRRITABLE AND HYPERTROPHIED SPHINCTER.

BY

GEORGE B. MORELAND, M. D., PITTSBURG.

AN irritable or an irritable and hypertrophied sphincter is not in many cases, if any, a primary condition, but is a symptom of some other disease which involves the nerve fibres of the muscles. This involvement of nerve fibres is the true cause of the irritability, and in time, hypertrophy results, if the causative factor is not eradicated.

Irritable sphincter and hypertrophied sphincter are comparatively synonymous terms, and differ only in the acuteness or chronicity of the process responsible for this condition. In the

beginning stages one will find a tightly contracted and exceedingly irritable muscle, responding to the slightest stimulus, while later the muscle will be found thickened, enlarged, and not nearly so irritable or responsive to stimuli. Very little has been written on this subject, as the majority of treatments for this condition are incidental, and are given not as a treatment *per se*, but only as a part, and in the minds of many, only a minor part of the major treatment, or if a dilatation is performed it is done only because there is necessity for it in order to have room in which to work, and the beneficial results which follow are attributed to the primary operation alone, and not any to the incidental dilatation.

The causes of irritable or hypertrophied sphincters are various, but may be placed in two general classes: local, and remote or reflex. The local causes through inflammation, or merely through irritation by their presence, bring about the irritability, followed by hypertrophy later, and the remote or reflex, as the words indicate, through the nervous system, particularly the sympathetic.

The external sphincter receives its nerve supply from the fourth sacral and inferior hemorrhoidal branch of the internal pudic. As this muscle is supplied and operated by the cerebro-spinal system of nerves, it is under control of the will.

The internal sphincter is supplied by the sympathetic, and is not under the control of the will.

Both muscles, and I think this should be borne in mind, are closely connected by nerve branches to the different pelvic organs, and are more or less affected by disturbances and changes in other parts of the pelvis.

Attention is usually called to an irritable or hypertrophied sphincter through the patient complaining of some local distress, although local disturbances by no means should be taken as the sole indication for the necessity of making examinations to discover if an irritable or hypertrophied sphincter be present.

While some particular symptoms cause the patient to present himself for treatment, one should never lose sight of the fact that in the vast majority of cases of rectal disease there is present a hypertrophied or irritable sphincter, and an examination of the muscles should be made in order to determine what influence their condition has on the disease for which the patient presents himself, and if hypertrophied, what influence treatment

tending to bring the muscles back to their normal tone, would have on the local and general state of the patient.

To determine the exact condition of the muscle, whether healthy or diseased, an examination of the parts is necessary.

The most convenient position, that causing least exposure, is to have the patient lie upon either the left or right side with the thighs well flexed upon the abdomen. Placing the thumbs upon either side of the anus and forcing them apart, the sphincters will relax, and the anal tissue be brought into view if the muscle is normal in tone.

If, on the other hand the muscle is irritable or hypertrophied, it will be a hard matter to separate edges of the anus, or bring the anal tissue into view, as the tendency of the muscle is to contract when handled, if in an irritable or hypertrophied state.

The next procedure is to touch the parts all around the anus to see if the muscle contracts under pressure at any particular point, the contraction frequently indicating the diseased point above the portion touched.

The index finger being well anointed, with a steady pressure, and a boring motion, is slowly introduced into the rectum. This can usually be done with little discomfort, although in the presence of ulcers and inflammatory conditions some pain will be produced. The amount of pain produced differs in different patients, and with different examiners.

If acute irritability exists there will be found a tight cord-like muscle, very little thickening of muscle fibres, with a continuous contraction, causing more or less distress as one presses the hand against the anus, and attempts to sweep the finger around the rectal wall, and there will be a constant effort on the part of the muscle to expel the finger.

The same is true of the hypertrophied stage, with the exception that there is less discomfort caused by examination and the muscle is hard and thickened.

It must not be forgotten that muscles are much heavier in some people than in others, and it becomes necessary to be able to distinguish between a large healthy muscle, and one pathologically hypertrophied.

This ability comes only with practice.

The healthy muscle, however, is soft and patulous, rather dilating with the finger in the rectum than contracting, and there is no special effort at expelling the finger after the first few moments.

At times, on the first examination the muscle seems normal, or even relaxed, but on examination a few minutes later will be found to be quite irritable, and one should not be content with one examination alone.

The scope of this paper and the time allotted will not permit a detailed account of all the different conditions that bring about an irritable or hypertrophied sphincter, nor can one take the time to enter into the treatment of any or all of these conditions, as almost any of them are subjects for a single paper alone.

As above stated, any local inflammation, or anything that by its presence alone causes irritation, may give rise to this state of the muscle.

External hemorrhoids, fissures, polypi, inflammation of the semilunar valves, hypertrophied papillæ, fistula, abscesses, internal hemorrhoids, constipation, foreign bodies, all tend to cause this trouble, and almost invariably are accompanied by it.

If the irritation is recent and of short duration, removal of the cause will give relief, but if of long duration, one must give treatment to the irritable and hypertrophied muscle.

Urethritis, urethral stricture, cystitis and other urethral and bladder diseases are a frequent source of irritable and hypertrophied sphincter, either through direct extension of inflammation or through the nerve reflexes. In fact inflammation or irritation anywhere in the pelvis may be productive of this state of the muscle. It is well known that young girls who have a uterus badly developed and anteflexed, suffer from constipation and rectal troubles. As an anteflexed uterus cannot by pressure produce constipation or rectal trouble, it is likely that they are due to reflex action by means of the sympathetic.

It is known that long continued irritation of a voluntary muscle causes fibrous degeneration.

Now it is also well known that some women having rectal trouble soon acquire uterine trouble. It is due to reflex action, the rectal irritation being transmitted to the sympathetic plexus and returned to the uterus, inducing circulatory and nutritive changes.

There are an immense number of sensitive nerve endings crowded into the lower inch of the bowel. Every one recognizes the frequently unaccountable influence irritation and disease in other parts of the pelvis has on general nutrition, and how many ills of reflex origin emanate there.

What would have more of a tendency to set up reflex disturbances and cause nerve waste than a chronically constantly acting irritable muscle?

Lesions of the external muscle, by disturbing the cerebro-spinal nervous system produce pain, and distress the patient so much that relief of some sort is called for. But when the internal muscle alone is implicated, a muscle supplied by the sympathetic, extensive pathological changes may take place without directing attention toward it. Disturbances of this sort, causing no pain, make themselves known in functional disorders, interfering with the nutrition of the body, and contributing towards the permanency of any existing disease.

The effect of forcible dilatation of the sphincters upon the respiratory centers is so important that any reference to the subject would be incomplete which did not include comment upon it. It is a physiological fact that should never be forgotten. As a means of reviving the vital spark in drowning, asphyxia, or narcotic poisoning, it is invaluable, and has been the means of saving many lives. In all operations upon the rectum, no matter what general anæsthetic is being used, the anæsthetist should be informed when the sphincters are to be dilated, and most operators follow this suggestion. If this is not done, the sudden and deep inspiration which accompanies the dilatation may be followed by a spasm of the glottis, endangering the life of the patient.

A similar effect may accompany the tightening of a ligature, or the application of a clamp.

Dilatation of the external sphincter alone will not produce this effect upon the respiration if the patient is under a general anæsthetic, as in that case the cerebro-spinal reflexes are abolished.

But if the internal sphincter is included, it is at once observed unless there is an anæsthetic condition of the nerve endings.

A ligature placed around a nerve filament can disturb the respiratory centers to so marked a degree as to endanger life. This has been noted not only by rectal specialists, and by so-called "Orificialists," but also by general surgeons.

If a ligature so placed in the anal region can disturb the respiratory centers to such an extent, is it not reasonable to suppose that some less acute irritation constantly acting may have an influence not only on the respiratory centers, but other functions also?

If posterior urethritis, cystitis, prostatitis, etc., bring about an irritable and hypertrophied sphincter, why may not an irritable sphincter, through the same nervous influences, prevent the return of these conditions to normal?

Dr. Ashcraft, of Philadelphia, and Dr. Baer, of Pittsburgh, are firm enough in their belief that such conditions have a marked influence on retarding cures as to include divulsion, in certain selected cases, as part of their treatment for prostatic and urethral diseases.

When one finds an irritable or hypertrophied sphincter, what is to be done? Early, a removal of the cause, if discoverable, is indicated, and usually in that case, the irritability disappears.

Ordinarily, however, removal of the cause, if found, does not relieve either the irritability or hypertrophy, and if these be allowed to persist, they continue to have an influence, through the reflexes.

Dilatation or divulsion, either with or without a general anæsthetic, is the best means of treatment. By the use of dilators of hard rubber of graduated sizes, or of pneumatic dilators, or vibrators, one can accomplish something, but thorough divulsion under nitrous oxide gas is to be preferred.

Safe, effective, if properly done, requiring but one treatment, there is nothing in the entire list of rectal treatments that promises better results, both in a local and general way. It can be done in the office, and the patient can leave in one-half to three-quarters of an hour later, feeling almost as good as when he entered, with the exception of a sore, bruised feeling.

It is the ideal operation for fissure and ulcer, almost invariably stops hemorrhage from internal hemorrhoids, and opens the way to local office treatment of many rectal conditions that would otherwise require radical operation under a general anæsthetic.

The operation is performed with the fingers, no instrument being used, as it requires the expert finger touch to determine in each individual case just how much force should be exerted.

I have not yet reached the point where I believe that all the ills that flesh is heir to, are caused by rectal diseases, nor do I believe that divulsion should be practiced in every case of rectal disease, but I do believe that in cases of constipation, insomnia, nervous prostration, and different functional derangements, that an examination is not complete without a careful examination of the anus and rectum.

TUMORS OF THE BLADDER, WITH SPECIAL REFERENCE TO FULGURATION TREATMENT.

BY

G. F. BAER, M. D., PITTSBURGH, PA.

PERHAPS in no other disease of the urinary tract has the cystoscope proved of such service as in tumors of the bladder. The prognosis is accurately rendered, and the operative interference guided along purposive and judicious lines.

There are few rules which must be observed, owing to the difficulties and dangers which are met with in examining a bladder affected by neoplastic changes. The rules for examining tumors according to Hurry Fenwick, are of paramount importance.

1. Always cystoscope, never sound for symptomless hæmaturia. This sharply defined symptom, when present alone, demands the employment of the cystoscope. No other instrumentation should be tolerated. Sounding or vesicle irrigation are more than useless. (Washing out the bladder causes slight surface necrosis of the base, which may infect the unhealthy ureter, thus giving rise to the added risk of pyelonephritis.)

2. A gentle rectal examination should be the first step in the inquiry. Here, upon introducing the finger, a pronounced, circumscribed, interstitial hardness of the posterior wall causes one to suspect an infiltrating epithelioma.

3. Dark hæmaturias, without clots, rarely need any preparatory washing out for clear cystoscopy; a diuretic often suffices.

4. Always cystoscope and operate, if necessary, at the same sitting if the bladder has to be washed out. Here fulguration proves of great value, and at the same time facilitates the elimination of the annoying shock which so commonly is noted following supra-pubic cystotomy.

The difficulties which one meets with and must surmount in the cystoscopy of tumors are:

1. Hemorrhage from over-distension.
2. Hemorrhage from abrasions of the growth caused by instrumentation.
3. Difficulty in illuminating, owing to the size of the growth.

4. Difficulty in washing out the bladder.
5. Difficulty in ascertaining the site of the base where there is a pedicle.
6. Difficulty in determining the character of the base of villus-covered growths.

In the consideration of vesicle tumors, we are confronted by two varieties, the villus covered and the bald. The villus covered are either malignant or benign, and the smooth-surfaced, or bald, is almost invariably malignant, more especially after the age of forty-five.

Where villi exist, the tumor is usually superficial in the beginning.

In the benign variety, the villi appear longer and of more luxuriant growth, and if this villus growth be multiple, the difficulty of diagnosing the benign character is increased.

Generally upon the visual examination, nothing is seen but the villus covering. The base of the growth can only be roughly estimated by turning the patient from side to side, or by elevating the pelvis, thus allowing the growth to drop away from its site and expose the pedicle.

Again, by the use of an irrigating cystoscope, the growth may be driven up by directing a stream of water against it.

The character of the growth does not denote the thickness of the pedicle which may vary from a mere thread to that of a quill, or only a fold of mucous membrane.

Then, too, the growth may be sessile and arise without any trace of stalk or pedicle.

Early examination usually reveals single growths. Much depends upon the duration of the cause, for as time goes on, small secondary growths arise from around the primary site; either towards the urethral orifice along the outer border of the trigone, or centrally upon the posterior wall of the bladder.

In 90 per cent. of the cases, papilloma are found around the ureteric orifice and are very rarely on the true lip of the ureter. When found in this position there is some irritation caused by the urine from that kidney.

Not infrequently one kidney will be found to excrete uric acid and oxalate of lime salts in greater quantity than the corresponding one.

There does not appear to be any law governing the size of these growths. The character of the mucous membrane in the immediate neighborhood of the tumor is often distinctly

altered. The surface may assume an appearance as if it had received the impress of a course thimble.

If the tumor is flat and succulent, broad pedicled, and if one side of it lies in apposition to the bladder base, its upper surface is papilated, the under surface is smooth and free from villus process, whilst the mucous membrane upon which it rests is reddened, swollen and granular. Large vessels will be seen, usually running in converging or parallel lines toward the base of the growth from the vascular supply of the bladder mouth.

In many cases, the ureteric mouth nearest the tumor is reddened, and its normal contour is altered. This may be caused in two ways, i. e. by the dragging of the tumor upon it, or inflaming it by contiguity. It will be found, however, that when the ureteric orifice does not bear evidence of back pressure, the bladder wall itself will show signs of the same force in the shape of little saccules. In the early stage of back pressure, if the bladder hypertrophies, the ureter escapes; if the bladder does not hypertrophy, the ureters suffer and give way.

The following axioms may be observed:

1. The longer the pedicle of the growth, or the more lax the surface of its implantation, the more likely is the tumor to float into and cork the urethral orifice, and therefore the greater the chance of residual urine accumulating, and the greater chance and danger of dilatation of the ureters and renal pelves. Such cases will not bear rough sounding or slovenly cystoscopy.

2. The more sessile the growth, the more medianly it is situated on the posterior wall, the less the chance of renal complications ensuing in the early stages.

The primary symptom or group of symptoms which first attract attention to the urinary organs of a patient suffering from villus papilloma do not herald the birth of the growth. They merely mark the termination of the first stage in the existence of the tumor. There are, therefore, three broadly outlined periods, the latent period, the hæmaturial period, and the final stage of cystitis, with its consequent fatal renal complications.

The first, or latent period.—No symptoms characterize this stage. The tumor, whether it be sessile or pedicled, gradually grows. It is only when its size permits of its being squeezed by the vesical walls in contraction, that a little blood appears at the end of urination, or when, by a sudden strain, or over-exertion, the base of the little growth is stretched. The latent

period is thus brought to an abrupt conclusion, generally by the appearance of blood issuing from the urethra, either during or after urination.

The second or hæmaturial stage.—In a large proportion of cases, the second stage is ushered in by the flow of blood at the end of urination, or intimately mixed with the urine. Generally no cause can be assigned. In a few instances, unusual exertion or fatigue may be credited with the hemorrhage. The bleeding is very rarely of a profuse type at the onset, and then only following some severe strain. In a few hours, or in two or three days, the bleeding ceases, either spontaneously, or upon the administration of some astringent. This cessation may continue for weeks or months, then suddenly and without warning, blood again appears at the end of urination, or is mixed with the urine, coloring it a dark red.

The third stage, or stage of cystitis.—In this stage the bleeding ceases, and purulent urine appears. Once cystitis is induced, it rarely ceases entirely. Certainly the consequent congestion renders the field more fertile for additional growth. Irritability and pain wear out the strength of the patient, inflammation ascends to the kidneys, gradually impairing the functions of those organs, and the patient finally succumbs to uræmia.

The indications for operation in cases of papilloma of the bladder are:

1. Long continued, severe hemorrhage.—It may be considered useless to interfere with a patient who has been bleeding continuously and freely for weeks, even months. To operate when the patient is bleached, listless and breathless on any exertion, is certainly useless, while still more useless would it be to operate supra-pubically when the patient faints on such slight provocation as being raised in bed.

2. Pronounced "one kidney ache."—This symptom is a distinct, though not an immediate indication that the source of irritation should be removed. The ache will probably not subside on the removal of the growth, in fact it may not disappear for months afterward. Freeing the kidney from its fatty capsule may relieve to a great extent. The aching may be due to the drag upon a sensitive kidney by surface adhesions, these adhesions being induced by inflammation extending from the ureteric orifice to the renal pelvis, and to the cortex.

3. Impeded urination.—This symptom, especially if it is

accompanied by pain in the kidney on straining to micturate, demands its removal.

The contra-indications for surgical interference are, briefly:

1. Pyelitis.
2. Malignancy, wherein the patient is weighted with an exhausting disease as well as blood loss.

The fulguration treatment may be administered here regardless of the above-mentioned conditions. By the fulguration treatment, I mean the destruction of the tumor by the high frequency spark. This seems to have a selective action upon the morbid tissue, probably due to the lessened resistance of such tissue to destructive agents.

Before the treatment is begun, it is advisable to have the patient rest absolutely for twenty-four to forty-eight hours, with administrations of urotropin grs. $7\frac{1}{2}$, T. I. D., plenty of water, light diet and free purgation of the bowels.

One half hour before taking the patient to the X-ray room for treatment, my assistant inserts a rectal suppository having the properties of both an anodyne and an anæsthetic, made from the following formula:

Rx.—Morphine Sulphate, grs $\frac{1}{4}$.

Atropine Sulphate, grs. 1-120.

Cocaine Muriate, grs. 1-5.

Extract Cannabis Indica, grs. $\frac{1}{2}$.

The patient is now placed on a Bierhoff table with knee rests attached. (I prefer these to the foot-rests because of the tension to which the patient is subjected during the operation.)

The parts having been rendered aseptic, the assistant instills a local anæsthetic of cocaine 2 per cent., or alypin 2 per cent., along the prostatic urethra and neck of the bladder with a special instillation syringe. According to the amount of hemorrhage present; I use either the soft rubber catheter or the catheterizing cystoscope.

The solutions used are a normal saline solution, followed by saline and adrenalin chloride, continuously until the return flow is clear. The next step is the moderate distension of the bladder with a saturated solution of boric acid. The patient is now ready for treatment.

Having placed the catheterizing cystoscope in position, we insert a specially insulated wire of the same size and length as a No. 6 ureteral catheter, (a small end of the wire being free of the insulation).

The current used may be taken from a high frequency coil and Oudin resonator, or from a high speed static machine. We use a special Radiographic coil in conjunction with a Oudin resonator, so adjusted as to give a short, hot spark. The electrode consists of a hard rubber handle with a break switch handy to the thumb.

The most dependent portion of the tumor having been noted, the wire is so placed as to avoid a short circuit. The first thing noticed when the spark is in action, is the rapid pulsation through the fluid medium, as well as a waving motion of the villi.

One may become confused here in not noting carefully that the intensity of the spark melts the insulation for about three-sixteenths ($3/16$) of an inch, thus eliminating the pulsations, and probably increasing the intensity of the spark.

The wire, when plunged boldly into the tumor and allowed to remain for a few seconds, shows a slight whitish spot due to the cauterizing action upon the surface of the tumor.

The duration of fulguration depends upon the degree of discomfort shown by the patient. I generally make from 15 to 20 applications, depending upon the size of the tumor.

The main obstacles encountered are the bleeding during manipulation, and the floating particles of disintegrated villi, caused by the application of the spark.

Treatments are repeated not oftener than once a week, depending on the hemorrhage after twenty-four hours, and also upon the general condition of the patient. In the intervals it is advisable to prescribe urotropin $7\frac{1}{2}$ grs. T. I. D., and elixir chloro-calcium, drachms 1, every four hours. Other useful remedies are achillea (aqueous) gtts. 5 every two hours, geranium tr. and thlaspi bursa pastoris.

Strychnia sulphate grs. 1-100 will be found useful in shock, especially in patients suffering from secondary anæmia. A tonic should be prescribed after hemorrhage has subsided. Ovocerrin, drachm 1, T. I. D., followed by phosphagon in the same dosage, will produce excellent results.

Following are the reports of two cases recently treated and cured by the fulguration method.

Case 1, J. D., age 46, married. In August, 1910, patient contracted a severe cold, which terminated in a spontaneous and painless hæmaturia, which lasted several days. About two weeks later the condition returned spontaneously, and remained

until October, 1910, when I cystoscoped, and found a papilloma on the outer edge of the trigone, to one side of the left ureteric orifice. Patient stoutly refused operation. Began the fulguration treatment, using first the D'Arsonval unipolar current. Bleeding subsided after first treatment. The result was not as satisfactory as was expected, so, acting upon the suggestion of Dr. Pond, we administered the Oudin unipolar current with marked success. After six treatments, no trace of the tumor was seen, and in its place, we found a scar. Have cystoscoped patient several times since, but have noted no recurrence.

Case 2.—T. A., age 65. Patient presented himself with the following symptoms: Spontaneous, painless hæmaturia, without any apparent cause, and existing intermittently for fourteen months.

Cystoscoped and found a papilloma on the posterior surface of the bladder wall, freely movable, and having a thick pedicle.

Applied with Oudin unipolar high-frequency current and attacked the pedicle and fundus of the tumor. After two treatments, the hemorrhage ceased. Nine treatments were given, with no apparent sign of return. Case has been under observation six months, with no sign or symptom of the former condition.

DISCUSSION OF DR. BAER'S PAPER

DR. WHITE: I have observed one case of papilloma of the bladder. It involved the trigone and was about three inches in diameter. Hemorrhages had been going on for something like a year. After several treatments with the high frequency, using a hot spark of six to eight amperes, the hemorrhage commenced to abate, and to-day the villous condition has disappeared. There is a good deal of irritation at the base of the bladder, but the condition is very much improved.

DR. F. S. MORRIS: I have been watching the treatment with fulguration, and when we consider that papillomas of the bladder so frequently recur after removal by operation, it would seem that fulguration offers to prove a very favorable method of treatment. It does not expose the patient to much risk. I have watched three or four cases that have been treated by this method, and the results in all of them were eminently gratifying.

DR. BAER: The growths treated by me were of different

sizes. The first case was one about the size of a small lemon; it had a well defined pedicle, and was easily removable. I believe, however, that fulguration method would be applicable to any growth that was not more than three inches in circumference.

EPITHELIOMATOUS AND PRE-EPITHELIOMATOUS LESIONS OF THE MUCOUS MEMBRANES OF THE BUCCAL CAVITY.

WITH A DEMONSTRATION OF A SUCCESSFUL METHOD OF TREATMENT BY THERMO-ALBUMENIZATION; PRELIMINARY REPORT.

BY

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UNFORTUNATELY there is but little literature upon the lesions affecting the mucous membranes of the buccal cavity, so that the essayist has had but little literature from which to glean, and must depend almost entirely upon his own observations, deductions and experiences gained in the treatment of these conditions.

I shall not enter into detail upon the various conditions which I shall enumerate, but shall merely have a few words to say regarding each, because the scope of this paper will not permit.

I shall, however, lay particular stress upon one of several epitheliomatous conditions of the mucous membrane upon which the writer has been unable to find any literature at all, and regarding which he has taken particular pains to note its various phases and forms.

I shall, then, give you a preliminary report upon the treatment of these conditions by a successful method of thermo-albumenization, reporting a few of the cases successfully treated during the past three years as typical cases in question.

The first condition which shall demand our attention is the so-called "leukoplakia buccalis." The patches of leukoplakia

are whitish in color, best simulating a patch of cigarette paper stuck on; are very slightly thickened and of indefinite outline and irregular shape.

At times they undergo spontaneous evolution and disappear entirely; or may remain superficial, or in extremely chronic cases may undergo hyperkeratosis, undergoing thickening and gradually spreading over the entire mucous membrane. Later on undergoing epitheliomatous degeneration.

These patches may occur anywhere within the oral cavity, including the surfaces of the tongue as well. There are no subjective symptoms practically.

It has been contended that leukoplakia is either a lichen planus or syphilis. It is never lichen planus unless there are concomitant symptoms of lichen elsewhere on the cutaneous surface. It may not always be syphilis, because it occurs frequently where there is no demonstrable cause of syphilis, not only from the history, but as well showing the absence of Wassermann reactions, and as well, absence of hereditary syphilis, and because these non-syphilitic lesions are of a hyperkeratotic nature without changes in the vascular condition, while it is a well known fact that the lesions of syphilis are primarily vascular. Then again, syphilitic leukoplakias show usually an exclusive location on the tongue without lesions on the other portions of the mucous membrane of the oral cavity.

Permit me at this point to mention the fact that there are certain types of circinated eruptions of the tongue which consist of spreading patches which appear on the posterior surface of the tongue, showing slight scaling which may be yellowish or whitish in character, and which may coalesce to form geographical outlines.

Let us next consider for a few moments the tuberculous lesions of the mouth. This condition is not usually of primary origin, but is usually an extension of a lupus of nasal origin. It is merely interesting at this point because of the fact that it may undergo further epitheliomatous degeneration.

It forms at first a hypertrophied condition of the mucous membranes undergoing ulceration, is very friable, and tends to bleed easily.

Angiomata and lymph angiomata, as well, appear in the oral cavity, usually as softish tumors which disappear under pressure, the angiomata being bluish in color, while the lymph angiomata are yellowish in color at times with small red projections.

These have a tendency to undergo epitheliomatous degeneration in later life.

The mucous patches of the oral cavity will next interest us for a few moments because of the fact that they may be mistaken for pre-epitheliomatous leukoplakias. When seen on the tongue they are usually one of three forms; the ordinary mucous patch simply presenting itself as a non-suppurative,



A VILLOUS EPITHELIOMA OF THE HARD PALATE. CASE REFERRED TO IN PAPER

greyish patch with an erythematous margin, flat and at times slightly depressed. This lesion may occur anywhere within the oral cavity either on or beneath the tongue or the inner surface of the cheeks.

Then there is a type which shows hypertrophy. These are usually seen on the posterior aspects of the tongue, seeming to consist of hypertrophied papillæ with the usual greyish color.

Then there is a type which appears to be denuded,—that is to say, there is an absence of papillæ, patches appear decidedly

depressed, being irregular in outline, and are only occasionally seen.

Then, of course, there is the syphilitic gumma, usually hard and painless, varying in size from that of a pea to a hazel-nut, which later on may undergo ulceration, becoming quite deep and craterform in type.

It must be emphasized at this point that tertiary syphilis of the tongue is rare, and that such types are not frequently observed. We should as well note at this point that these types of leutic manifestations have as well undergone epitheliomatous degeneration.

Tuberculosis of the tongue is decidedly rare, and is practically only seen in those who are suffering with pronounced tuberculosis elsewhere. The microscope very easily reveals swarms of the bacilli. Lingual tuberculosis merely interests us from the standpoint of differential diagnosis.

It is important to note that one will occasionally notice on the mucous membrane of the inner cheek a small lesion which seems to fit into a space between two missing teeth, usually on the upper jaw, fitting exactly into this interspace. This has frequently been taken for a neoplasm. It is, however, important to note that these lesions are subject to constant sources of irritation and injury from movements of the jaw by occasionally being caught between the molars in mastication, and in that way becoming irritated and inflamed, and later in life undergoing epitheliomatous degeneration.

There is a type of hyperkeratosis of the mucous membrane of the lips which even extends out beyond the vermillion border, occurring anywhere from twenty-fifth year onward.

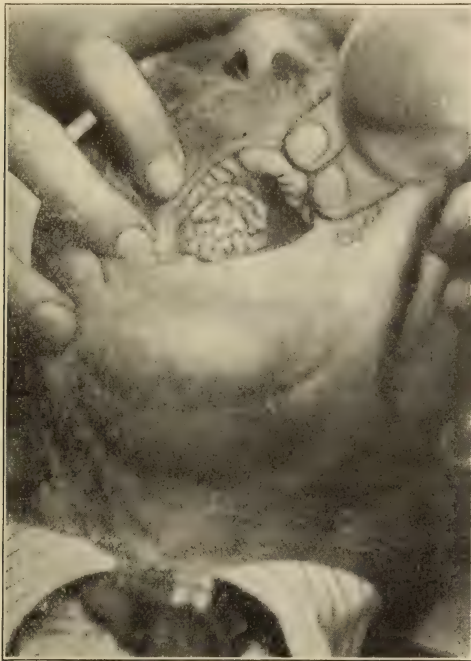
It may be whitish in character, usually, however, has the appearance of thin layers of hyperkeratotic tissue, brownish in color, sticks closely, and is intensely adherent to the surface of the lip. With great force occasionally it is possible to denude these areas of hyperkeratosis which show dippings down into the follicular orifices, and bleed intensely.

These are decidedly epitheliomatous in type, and have been contended by some authorities to be related to the leukoplakias already described.

There is still a tertiary hypertrophic tumorous form of syphilis which presents itself in the lower lip, greatly deforming it, causing marked protuberance, is hard and indurated, and has all the appearance of a nodular epithelioma.

This type of syphiliomatous tumor may as well become epitheliomatous.

Permit me next, if you will, to describe a type of epitheliomatous affection presenting itself upon the mucous membrane of the gums and inner cheeks, usually beginning upon the upper or lower border of the gums, and then gradually spreading out upon the buccal surfaces of the cheeks themselves or upon the hard and soft palate.



VILLOUS EPITHELIOMA OF THE MUCOUS MEMBRANE, BEING AN EXTENSION FROM THE HARD PALATE. SAME AS PREVIOUS CASE.

Individual areas, however, may begin and later on coalesce. Clinically there seem to be three stages of this peculiar condition. The first appearance in those cases which have been studied, presented a slightly excoriated area, which is rather dry and presents an otherwise erythematous appearance. This stage may last for a long period of time.

In what I have called the second stage there seems to be a very slight sub-epithelial induration or thickening, the color of the affected parts appearing to change from a reddish brown

to a whitish brown, although at times quite grey. Thickening, however, is not decided. The best resemblance that I can give to describe the condition at this stage, I should state was that as though the affected areas were covered with mold, as one would expect to see in types of fungoid growth.

From this stage on into what I have been pleased to call the third stage, we find a most remarkable condition. Here we have an appearance likened mostly to that of tripe. There appear numerous villi which are decidedly white in character, covering the entire surface of the affected areas, with here and there deep cracks and rhagides. There is now decided and deep thickening.

Pain is decidedly conspicuous by its absence, and does not seem to cause the patient any annoyance whatsoever, except from the process of mastication. This type of epitheliomatous degeneration, which it surely is, because of the fact of microscopic verification, does not undergo ulceration, but seems to progress as before mentioned.

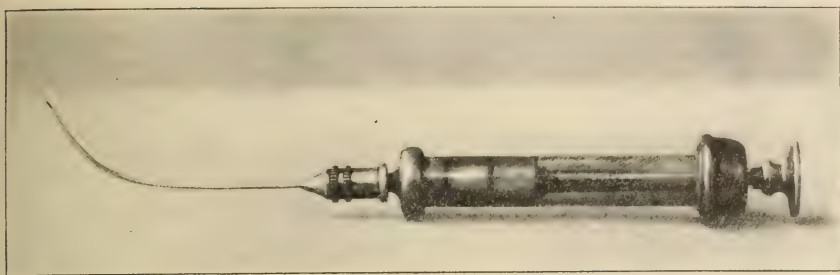
There is no glandular involvement, and extends as far down as the soft palate and the margin of the fauces.

There is no doubt but what this condition is due to some continual irritation of the surface epithelium, damaged perhaps by constant irritation by decayed teeth, or by smoking, tobacco, etc. In several of the cases epitheliomatous history was obtained, and in others negative.

Having now superficially gone over the epitheliomatous types of lesions with which one has to contend in the buccal cavity, I shall now present to you an outline of what I presume to be an original method of successfully treating these epitheliomatous and pre-epitheliomatous lesions of this region. I have termed the form of treatment "thermo-albumenization" for reasons which I shall shortly unfold to you.

The thought of such a procedure first suggested itself to me some three years ago, at which time I first took up the treatment of epitheliomatous and pre-epitheliomatous lesions of the cutaneous surface by the carbon dioxide or freezing method.

A case came to me with just such a peculiar type of epitheliomatous lesion of the mucous membrane of the cheek just described to you, for carbon dioxide treatment. Carbon dioxide was of no avail to mucous membrane conditions of the buccal cavity because of the fact of the moisture and bodily temperature present, and further because sufficient pressure could not



Author's iridio-platinum syringe needle for the injection of normal saline solution into lesions of the buccal cavity, conforming to the various curves of the mouth without trouble.

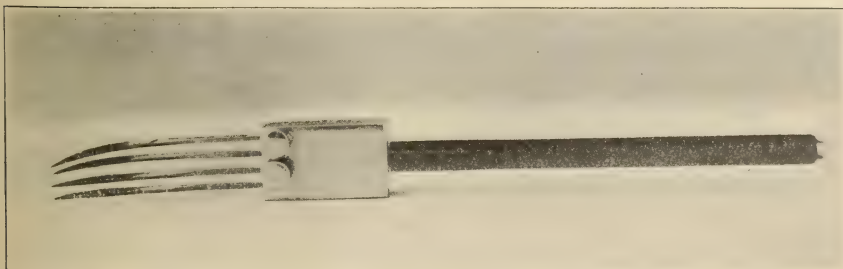
be exerted upon the lesions, and because I feared œdema of the epiglottis and its consequences.

The thought then struck me that as carbon dioxide produced its effect in the treatment of these conditions by causing a mechanical rupture of the cellular structures involved by its intensely low temperature, why would it not be possible to bring about cellular disintegration by going up the scale of the thermometer instead of down.

The thought of what I have since termed "thermo-albumenization," then presented itself to my mind, and by slow and careful evolution I have been enabled to perfect more or less of the details which I shall now present to you.

My first experimentation was upon egg albumen, being enabled to cause its albumenization or coagulation by the formation of electrically generated heat by inserting an electrode therein.

My next experimentation was upon raw beef, which had been warmed up to bodily temperature by holding in the hands



Author's instrument for producing thermo-albuminization, to which is to be attached a pyrometer, now being perfected, with which the exact amount of heat generated in the tissues can be measured.

a sufficient length of time to cause it to be thoroughly warmed through, so as to determine the necessary amount of heat to cause its simmering or, in other words, its albumenization.

Having determined the least amount of heat necessary to bring about such a condition, and having devised a special instrument which I have since perfected, and with which I shall demonstrate to you this evening, I proceeded upon my patient.

I first took a small area far posteriorly on the soft palate near the anterior pillars of the fauces which was showing rather rapid progress downward.

Having first injected normal saline solution, getting a pressure anæsthesia thereby, and then inserting my electrode, permitting the specialized D'Arsonval current to pass through for a period of time.

Nothing more was attempted. I was gratified on my patient's return within twenty-four hours, to note that I had a decided erythematous reaction without œdema and without pain. In twenty-four hours more there was a decided change in the color of the aforesaid area; it became decidedly yellowish in character, and in twenty-four hours more it was of a greenish-yellowish hue. In the course of two weeks this gradually disappeared, leaving a pinkish-whitish area in its place.

I then immediately proceeded to treat the other areas involved with the same gratifying results. These areas were of the villous type, intensely hard and indurated; but readily succumbed to this method of thermo-albumenization.

The villous areas after twenty-four hours became decidedly flat, appearing to have caved in, leaving almost a smooth whitish, lustreless area, which again after twenty-four hours underwent the similar process of involution as previously mentioned.

After a course of treatment lasting over six months, the entire area healed over with practically little or no scar formation, and has remained healed ever since, showing no signs of returning degeneration.

This patient had been to a hospital, where they excised a specimen of his mouth, giving a report of its epitheliomatous nature. I likewise verified the diagnosis by my own microscopical examination.

Microscopical examinations of areas treated seem to show coagulation necrosis, an absolute disintegration of the cellular structures, whereas I had previously mentioned in the carbon dioxide treatment of cutaneous neoplasms were merely found a

mechanical rupture of the cellular structure, causing the breaking down of the lesion which is then readily absorbed by nature.

The healthy cellular structures beyond the areas treated seem to have greater resistance than the cancerous cells, and do not seem to be affected by the albumenization process and the amount of heat generated, the explanation being that the cellular structures are of a lower type of vitality.

I have as well to show you this evening a special type of iridio-platinum syringe needle, which I was enabled to procure through the courtesy of the Harvey Pierce Co., who, after a great deal of pains and trouble and care finally produced a needle composed of iridium and platinum which would not rust, and which has sufficient resistance to give the graceful curve which is necessary to inject salt water into the lesions in the roof of the mouth, and which would conform itself to various bends and contortions to which it is called upon.

I have further, as well, to show you a special high tension apparatus from which I am enabled to receive the specialized D'Arsonval current used in the process of thermo-albumenization.

Having already cited a case, I will now proceed to refer to a few others, merely casually.

I shall next refer to one of the ideal results obtained in the case of Mr. H., of Havre de Grace, Md., referred by Dr. Crowther, of the same place. Patient was 57 years of age, whose lesion began as a small papule on the inner side of the cheek.

This patient kept applying an irritating fluid thereto which he stated was "good for man and beast," because such was the title upon the bottle containing the fluid which he used. This caused a gradual spread of the papular condition until it assumed a wart-like cauliflower growth, covering the entire side of the left cheek, and extending beyond to the angle of the jaw and of the hard palate. This was intensely indurated, practically painless outside of a slight stinging and burning which seemed only to be relieved by the application of the strong fluid which was "good for man and beast."

Patient treated by injections of salt water and thermo-coagulation over a period of nine months, discharged apparently cured without a return.

This patient was discharged cured two years ago.

I will next report the case of Mr. R., of Atlantic City, kindly referred by Dr. Sooy, of same city. Patient 44 years of age, bus driver. The lesion had its beginning three years previous to treatment, appearing as a small white area on the right side of the mucosa on the inner cheek, due evidently to the constant irritation of jagged teeth. Lesion gradually spread, involving the mucosa of both cheeks, and as well involved the mucous membranes of the gums of both upper and lower jaw, beginning at the teeth margins, which were intensely filthy as the patient no doubt failed to carry out the necessary hygienic routine of the buccal cavity.

Here the areas began, as previously mentioned, as reddish erythematous spots which gradually became greyish or whitish in character, then becoming of the whitish mouldy or fungoid appearance, and then becoming villous and indurated in type.

This was indeed a refractory case to treat, but after a period of treatment consuming practically a year, seems cured without evidence of return of any of the areas treated.

This patient had more or less reaction after treatments, there being some slight pain and more or less reaction and swelling. The areas treated alternating their appearance in twenty-four hours, becoming quite flat, and adhering closely to the cheek, losing the tripe and cauliflower appearance, and in forty-eight hours showing the usual characteristic greenish-yellowish sloughing, followed by gradual absorption and the appearance of smooth, pinkish-whitish areas.

Microscopic examination verified an epitheliomatous condition.

I would next refer to a case of epithelioma of the hard palate, referred by Dr. E. M. Vaughn, of Royersford. Mrs. H., 70 years of age, of Spring City. The lesion was of the rapid proliferating type, beginning as a nodule about the size of a pea, and rapidly enlarged within two weeks until it became the size of a hazelnut.

The lesion was practically without pain, decidedly vascular in type, with intense hemorrhages; the slightest irritation causing a profuse outflow of blood which was almost impossible to check.

The patient stated that she had noticed a soft spot in her mouth six months previous to coming for treatment, but paid no attention to it because it did not annoy her.

The lesion was decidedly bluish-purplish in color and may

have been of a telangiectetic type with rapid epitheliomatous degeneration. There was no history in the family of epithelioma. This patient was given one treatment by thermo-albumenization. Twenty-four hours after treatment showed a zone of erythema about one-quarter of an inch beyond the area treated. In forty-eight hours the lesion showed the usual greenish-yellowish sloughing about the spot, but not entirely around the area of erythema beyond; reaction being at the point of the electrode.

There was decided hemorrhage during the treatment, to which little attention was paid, which, however, gradually ceased before the electrode was withdrawn, and which ceased immediately upon the application of light pressure.

Patient had no more hemorrhage after the treatment, and the lesion appeared to be shrunken about one-half in size. Within seventy-two hours the lesion was quite flat and appeared to be shrunken below the surface.

Patient reported absolutely no pain or inconvenience, and no recurring hemorrhage. The lesion now had the peculiar greenish-yellow sloughing, and gradually retrograded, leaving a pinkish area with a fine linear scar. Has showed no signs of return, and she is a perfectly happy and contented woman, eating her usual food and going about her daily occupation.

Microscopic examination verified the epitheliomatous diagnosis.

The last case which I shall report to you is that of Mr. P., of Trenton, 74 years of age, referred by Dr. Burdsell, of the McKinley Hospital of Trenton, N. J., whose photos I show you this evening.

This patient's condition started about nine years previous to the time of application for treatment, which he stated was a blister with no pain, beginning on the buccal mucous membrane and gradually spreading, involving almost the entire side of the one cheek; lesions having since started at various locations, so that there is one lesion on the roof of the mouth about the size of a half dollar, one on each cheek, and lesions lining the borders of the upper and lower gums, and posteriorly on the soft palate.

Cauliflower in type, practically without pain; was an inveterate smoker. Lesions began grayish in color. States that his daughter died of cancer of the liver at 40 years of age, but otherwise history negative.

This patient has been one of the most obstinate to treat. The smaller isolated lesions readily succumbed to the treatment by thermo-albumenization. The larger one in the roof of the mouth has retrograded from about the size of a half dollar to about the size of a dime.

This patient is still under treatment, and I had hopes of bringing him here to-night to demonstrate the method of technique to you, but he was unable to get away from his work for so long a period of time.

Have every reason to believe that this patient will as well be absolutely relieved of this condition same as the previous ones mentioned and the many not mentioned. Microscopic examination likewise verified the diagnosis of epitheliomatous degeneration.

In conclusion permit me to state that it is always well to remember that caustics, such as nitric acid, carbolic acid, silver nitrate, etc., should never, never be used, and are of no service whatsoever; they simply stimulate epitheliomatous growths on to renewed life and activity. Unfortunately the X-rays have but little influence upon mucous membrane conditions.

Since the majority of the lesions of the mucous membranes of the oral cavity are epitheliomatous in nature, it behooves the physician to see that they are immediately and properly decancerized, and I know of no better method than that of thermo-albumenization.

DISCUSSION OF DR. BERNSTEIN'S PAPER.

DR. E. M. GRAMM: I am very much interested in the destruction of neoplasms by electrical processes. If the character of the current is such that it will destroy the cellular elements of the neoplasm, it will produce a coagulation necrosis; in other words, if you take a galvanic current and introduce the negative pole into a neoplasm you will have a whitish zone showing itself around the needle, and if that current is kept flowing for quite a little time a destruction takes place and a slough occurs. If you take a high frequency current and pass it into a tissue you do not get a fulguration effect. Fulguration, as introduced in France originally, meant heat destruction by means of an exceedingly fine hot spark passed from a pointed electrode; in other words, you have the spark, which is another method of producing this coagulation necrosis. The amount of heat produced in the tissues by the use of the gal-

vanic current is in direct proportion to the amount of resistance. You cannot figure out that a certain degree of heat will be produced by an apparatus unless you know the resistance of the tissues, the amount of current passing, and the voltage of the current. I, therefore, think that Dr. Cole is correct in saying that this is a coagulation necrosis, and that there is no new principle involved in the passage of this electrical current through a neoplasm.

ALLIUM CEPA.—Acute catarrhal inflammation of mucous membranes, with increased secretion.

Catarrhal dull headache, with coryza; <in the evening, > in open air; <on returning to a warm room (compare, euph. puls.).

Headache ceases during menses; returns when flow disappears (lach., zinc.).

Eyes; burning, biting, smarting as from smoke, must rub them; watery and suffused; capillaries injected and excessive lachrymation.

Coryza; profuse, watery and acrid nasal discharge, with profuse, bland lachrymation (profuse, full of acrid tears, bland and fluent coryza euph.).

Acrid watery discharge dropping from tip of nose (ars., ars. iod.).

Spring coryza; after damp northeasterly winds; discharge burns and corrodes nose and upper lip.

Hay fever; in August every year; violent sneezing on rising from bed; from handling peaches.

Nasal polypus (Mar. v., sang., sang. nit., psor.).

Catarrhal laryngitis; cough compels patient to grasp the larynx; seems as if cough would tear it.

Colic; from cold by getting feet wet; over eating; from cucumbers, salads; hemorrhoidal; of children; <sitting > moving about.

Neuralgic pains like a long thread; in face; head; neck; chest.

Traumatic chronic neuritis; neuralgia of stump after amputation; burning and stinging pains.

Sore and raw spots on feet, especially heel, from friction. "Efficacious when feet are rubbed sore"—dioscorides.

Phlebitis, puerperal; after forceps delivery.

Relation—Complementary; phos., puls., thuja.

Compatible; before, cal. and sil. in polypus.

Similar; to euph., but coryza and lachrymation are opposite.

Bad effects from getting feet wet (rhus.).

Aggravation—predominantly in the evening and in warm room (puls.—in open air, euph.).

Amelioration—In cold room and open air (puls.).—H. C. ALLEN, M. D., *May North American*.

EDITORIAL

THE RETIREMENT OF DR. BARTLETT FROM THE EDITORIAL STAFF.

We regret to announce the retirement of Dr. Clarence Bartlett from active work on the editorial staff of "THE HAHNEMANNIAN MONTHLY." Owing to the growing demands on his time by professional and college duties, Dr. Bartlett, has gradually withdrawn from active editorial work during the past four years, and has now decided to formally withdraw his name from any official connection with the editorial work of "THE HAHNEMANNIAN MONTHLY."

It is a satisfaction, however, to the editor now in charge to know that Dr. Bartlett has consented to act in a consulting capacity when needed, and to give such advice as his years of experience in editorial work have eminently fitted him to suggest.

Dr. Bartlett has been an active contributor to homoeopathic literature for 31 years. In 1885, he edited "Farrington's Lectures on Materia Medica," one of the most valuable and successful works on materia medica ever published in the homoeopathic school. In 1892, when Dr. Goodno, published his justly celebrated work, "A Practice of Medicine," Dr. Bartlett contributed the section on Diseases of the Nervous system. In 1904, he published the first volume of his work on "Clinical Medicine," which was devoted to the symptomatology and diagnosis of disease. This was followed three years later by the second volume on treatment. Both of these books have won wide-spread recognition from scientific physicians of all schools, and rank among the most comprehensive and most scientific works of their kind that have ever been written by a homoeopathic physician.

His connection with "THE HAHNEMANNIAN MONTHLY," dates back to 1882, when he was associated with Drs. B. W. James and Pemberton Dudley in the publication of "The

Hahnemannian." In 1888, in conjunction with Dr. Van Lennep, he assumed the editorial work on the journal, which he has continued up to the present time, with the exception of 1897 to 1899, when the journal was edited by Dr. Van Baun.

Physicians who are not familiar with the manifold duties and responsibility connected with the editorial work of a medical journal cannot appreciate the amount of time and thought that Dr. Bartlett has given to the perpetuation and development of a journal, that would stand for all that was best and most progressive in the homeopathic school. Despite the fact that he received no compensation whatever for all these years of work, Dr. Bartlett, has been unceasing in his efforts to advance the interests of homoeopathy and of homoeopathic physicians, and to maintain the journal at such a high ethical standing that it would be above just criticism and reflect only the highest credit on the homoeopathic profession.

His retirement from the position of editor, will be a loss that all can appreciate, but none so much as those who have been intimately associated with him in this work. The writer cannot bring these remarks on the retirement of Dr. Bartlett, to a close without a word of acknowledgment of his personal indebtedness to him. His example of ceaseless energy, his ever just criticism, and his kindly encouragement, have placed the present active editor under obligations to him that he can never repay; and any small degree of success that he has or may attain in his medical or journalistic career, will be due to the years of training and association with our retiring editor, Dr. Clarence Bartlett.

G. H. W.

A NOTE ON THE PUBLICATION OF THE TRANSACTIONS OF THE STATE SOCIETY.

At a recent meeting of the Publication Committee, of the Homoeopathic Medical Society of the State of Pennsylvania, it was decided to alter the method of publishing the papers read before the Society at the meeting at Bedford Springs. The papers read at the meeting of 1910, were published under the separate bureau, each issue practically containing a report of a single bureau. There were numerous objections raised to this method of publishing the papers because of the

fact that each copy of "THE HAHNEMANNIAN," contained papers dealing with but one specialty in medicine, and therefore, had little to interest physicians who were not engaged in that particular specialty. The Committee therefore decided to arrange for the publication in each issue of "THE HAHNEMANNIAN" of a number of papers selected from the various bureau in order that there might be something of interest to every reader. For example, in the present issue there appears, in addition to our regular contributed articles, three papers from the Bureau of Surgery and two papers from the Bureau of Obstetrics. It was decided to publish the papers under the bureau, as nearly as possible in the order in which they were read. Exceptions will be made to this rule only where there is some particular reason for it. The Committee, as well as the editor, feel that this method of publication will meet with the approval of the members of the Society and all our readers in general.

THE FACTORS THAT MAKE FOR AN EFFICIENT CIRCULATION.

At the last annual meeting of the British Medical Association, a number of papers were read dealing with the physiology of the circulation, and many important discoveries relating to the factors, that make for an efficient circulation were brought out. Prof. Schater stated that the effective action of the heart depends upon its rhythm and force of the beat and the tone of the blood vessels and of the heart itself. The rhythm and force of the cardiac beat, is adjusted through the agency of the cardiac nerves; the vagi moderating the beat, diminishing the force and lowering the tone, while the sympathetic increase the rate and power of the heart and raise the tone. The tone of the blood vessels, is an indispensable adjunct to the systole of the heart in maintaining the circulation. The regulation of the muscular tone of the heart and blood vessels, is the result of the peripheral stimulation of the vasomotor centers through the medium of the vasoconstrictor and vasodilator nerves. The vasoconstrictor nerves run with the motor nerves, while the vasodilators run with the sensory nerve fibers and have their distribution along with these. Through the medium of this mechanism the peripheral stimuli determine both the local and general variations in the tone of

the blood vessels. It has also been found that there exist certain chemical substances in the blood that notably influence the vascular tone. The most important of these are the internal secretions of the suprarenal capsules and of the pituitary body. The extract of the suprarenal capsule increases both the rate and tone of the cardiac muscle, and strongly stimulates to contraction the muscular tissues of the blood vessels. The extract of the pituitary body raises the tone of the cardiac muscle, but does not increase its rate, and while producing a constriction of nearly all the arterioles in the body, produces a dilatation of those of the kidney. An increased secretion of urine is likely to result from this. The pituitary extract also contains a depressor substance which diminishes the tone of the heart and lowers the arterial pressure. Under normal conditions there seems to be a balancing in the body of the influence of these two substances in such a way that the proper amount of tone in the blood vessels is maintained. Many physiologists are of the opinion that these internal secretions also exert a favorable influence upon the nervous mechanism of the heart and circulation, and perhaps exert a tonic effect or influence upon the nervous system in general.

The relation of arterial pressure to circulatory efficiency is a question that received considerable attention. It is evident that a certain rate of pressure must be maintained in the capillaries in order to bring about a normal flow of blood and facilitate metabolic changes. Clinical examinations would seem to indicate that an apparently normal circulation may exist with the blood pressure reading from below 100 to over 200 m-m., of mercury. Numerous observations seem to indicate, that in the average individual, a pressure ranging from 100 to 150 m-m., is most likely to maintain an efficient circulation. The contraction of the muscles of the various parts of the body and the pulsatile expansion of the living cells of the various organs, are important factors in maintaining the capillary flow. According to Leonard Hill, the heart drives the blood through the arteries, and the muscles squeeze the blood in the capillaries through into the veins. In the liver and other glandular structures, the expansion and contraction of the glandular tissues exercise much the same influence on the circulation as does the contraction of the muscles. The nutrition of the heart muscle, according to Sir James Barr, is

dominated by the nervous system, and the tone and irritability of the heart muscle, enables it to respond to stimuli promptly. The right side of the heart, is more sensitive than the left, and it contracts readily to a very slight degree of intracardiac pressure. On account of this tendency of the heart to respond quickly to an increase in diastolic pressure, Barr contends that in a case of syncope, we should not resort to artificial respiration, but simply hold the patient by the heels to raise the diastolic pressure within the right auricle and ventricle, and thus start their contraction. Many a case of sudden death, he believes, could thus be averted.

The role of calcium, in the maintenance of cardiac functions is most important. Just as the suprarenal and pituitary secretions are essential to life, so also the presence of calcium ions is necessary for effective cardiac contraction. It has been shown that the administration of calcium tends to increase the viscosity of the blood, and thus raises arterial pressure. On the contrary, the use of substances that remove calcium from the blood results in a rapid lowering of arterial pressure.

To summarize, it appears that the efficiency of the circulation is essentially dependent upon the harmonious activity of the various factors, influencing the tone of the heart and arteries. The most important of these are the irritability of the heart muscle, the nervous mechanism of the heart; the secretion of the suprarenal and pituitary bodies and the calcium ions in the blood. While there is much yet to be learned regarding the physiology of the heart and of the circulation, it is encouraging to note the amount of work that has been done on this very important subject during the last four or five years; and there is every reason to believe that the information thus gained, will prove of inestimable value to clinicians in the treatment of diseased conditions, affecting these structures.

G. H. W.

GLEANINGS

TREATMENT OF DIABETES MELLITUS.—Hodgson gives the following points which he thinks are essential to the successful treatment of diabetes mellitus: 1. To impress on the patient that after his apparent recovery, continued care in eating is essential to continued health. 2. To dispense, as a general thing, with such drugs as codeine and arsenic and to make the patient rely practically entirely on the diet and hygiene. 3. To insist on the restriction of the quantity of food just as much as of the kind. 4. To overcome constipation by the use of castor oil and olive oil or by the use of a mixture of these two with glycerin. 5. To insist that the food must be thoroughly masticated. 6. To restrict carbohydrates at the outset to the smallest possible amount consistent with safety. 7. To add starches gradually in but one form rather than in several until the point of tolerance has been reached. 8. To eliminate from the dietary those articles of food that have been found to be difficult of digestion, even in health, though their starch content may not be objectionable for a diabetic. 9. Above all, to impress the patient with the fact that his disease is essentially the result of vicious dietetic habits and that it is useless for him to expect any favorable results so long as the habit is persisted in.—A. J. Hodgson. *Jour. A. M. A.*

VEGETABLE AND FRUIT FOODS.—Lee states that the only reasons for an animal diet that explain its use are that the world has never had an abundance of fresh plant food and fruits available at all seasons, and that the vegetable diet has not been studied and served naturally, properly, and acceptably, thereby creating distrust, and a belief that plant life was not able to sustain human life without the addition of flesh meat. The truth is, plant and vegetable foods are man's fit, proper, and natural diet. The list of favorable edibles is extensive, the better articles are in the following enumeration. The quality and service of any food material rests largely upon the mode of preparation and use at table. The best foods may be spoiled in the kitchen. The cooking of foods for table use is a calling that is second to none, a worthy, high, noble profession, or work: Tomato, celery, radish, beet, turnip, carrot, cabbage, asparagus squash, potato, onion, spinach, kale, lettuce, cucumber, romaine, endive, oysterplant, kohlrabi, knob celery, rhubarb, melon, and some others; apple, peach, plum, pear, orange, lemon, grapefruit, banana, pineapple, raisin, apricot berry, cherry, grape, cranberry, fig, date, prune; bean, pea, rice, wheat, oat, rye, barley, corn, hominy, macaroni, honey, bread; peanut, pecan, walnut, hickorynut,, almond, filbert, brazilnut, chestnut, pinenut.

Oysters, on the other hand, fish, poultry, meat, eggs, milk, cream, butter, cheese, game, are unfavorable human foods; if used at all, it should be sparingly or in emergencies.

TREATMENT FOR CORNS.—In the method described Griffith depends on the mascerating power of ordinary adhesive plaster to effect the result sought. A strip of this material from $\frac{3}{8}$ to $\frac{1}{2}$ inch (1 cm.-1.25 cm.) in width and 4 to 6 (10 cm.-15 cm.) inches long is to be applied in spiral fashion to the affected toe covering the digit from neck to nail. The degree of tightness of the application deserves consideration to avoid compression. However, the feelings of the patient when stepping on the foot will serve as an adequate guide in this matter. Instructions to cut through the plaster lengthwise or to soak off the entire dressing by immersion in a hot water foot bath affords ample protection in cases of undetected microbic infection. Soaking the foot for ten to twenty minutes in water at a temperature of 100 F., with gentle removal by rubbing with a piece of sterilized pumice stone or forceps of the crown of hardened epidermis shortens the time of treatment. Griffith contends that properly applied the dressing described should afford relief from the moment of its application, and may be worn continuously for from one to six or eight weeks, bathing seeming to unaffected the adhesive properties of the plaster after once having set. Removal of the dressing at the end of an adequate time reveals the cornus completely freed, when it may be picked out entire by means of a dressing forceps or after an additional soaking. A wisp of absorbent cotton held on by means of a narrow adhesive strap may be subsequently worn for a few days.—*St. Louis Medical Review.*

TUBERCULIN TREATMENT IN SURGICAL TUBERCULOSIS.—Wilms (Deutsche Medizinische Wochenschrift) concludes from his clinical experience that the fungous forms of tuberculosis generally give a negative cutaneous tuberculin reaction. The cutaneous test therefore is no clue to diagnosis or prognosis unless the reaction is positive. On the other hand, with a fistulous or suppurating tuberculous process a negative reaction indicates a condition of cachexia. He has found tuberculin treatment especially advantageous in the forms of fungous tuberculosis giving a negative Pirquet reaction; the tuberculin treatment aids powerfully the natural tendency to heal. The slight reaction in such cases enables the dose to be rapidly increased. Combined treatment with tuberculin, roentotherapy, etc., is going to supersede surgical measures in treatment of tuberculosis, he thinks, more and more each year. The task is not only to remove the focus by an operation but to make the organism more resistant to reinfection. He is convinced that the cure of a tuberculous glandular process by conservative measures leaves the patient in better condition than when the lymphoma has been early removed. In the first case the body has been rendered strong by its struggle with the glandular tuberculosis and is thus more resistant against the unavoidable opportunities for new infection; while in the other case the body is equally sensitive as before to new infection and recurrence is almost inevitable unless tuberculin treatment comes to its assistance. Wilms remarks in conclusion that the scrofulous glandular swellings in youth may represent

the period during which the organism is immunizing itself against the ubiquitous tuberculosis infection. Consequently he pleads for greater reserve in removing these protecting and battling organs. If an operation is indispensable on account of suppuration then the body should be reinforced by a course of tuberculin.—J. A. M. A.

THE ETIOLOGY, PATHOLOGY AND TREATMENT OF CONCOMITANT, CONVERGENT SQUINT.—The author says that the loss or absence of the fusion center is not the only cause which will produce deterioration or loss of the fusion faculty. Conjunctival, orbital or muscular abnormalities, or imperfect vision may produce deterioration or loss of this faculty, or may prevent its development, and this defect is the cause of squint. This fusion faculty is a development faulty and capable of improvement, by training, or of rapid deterioration when not trained, or when the treatment is intermitted. For this reason correction and treatment should be begun at an early age, even at eighteen months, with good prospects of cure. The accommodation of the fixing eye should be kept relaxed by atropin, a full correcting glass given and the eye excluded for a few hours at frequent intervals. As soon as the child is old enough, the amblyoscope and stereoscope should be used. Combined treatment and operation are of great value and should be undertaken early.—Dr. Linn Emerson, *Ophthalmology*.

WILLIAM SPENCER, M. D.

LONG-CONTINUED USE OF STRYCHNIA IN TOXIC AMBLYOPIA.—The author describes a case that demonstrates the good result obtainable from the continued use of strychnia in alcohol-tobacco amblyopia. The patient was 38 years old. Vision was reduced to counting fingers at eight feet with the right eye, and at ten feet with the left. He had used alcohol freely for four years, and had been a confirmed smoker since boyhood. Advice to stop the use of alcohol and tobacco was complied with. Strychnia Sulphate, gr. 1-30 t. i. d., was ordered. Vision rose to 20-200 during the first week and remained so for six weeks. Injections of strychnia, gr. 1-30 t. i. d. into the temples were made twice a week. Home treatment consisted of six tablets daily, by mouth, and for a short time, potassium iodide, gr. 10 t. i. d. Vision improved until it became 20-15 in each eye.—Dr. Eugene Blake, *Ophthalmic Record*.

WILLIAM SPENCER, M. D.

AN UNUSUAL FACTOR IN AMBLYOPIA.—The report is that of a unique case. A seven year old boy had vision of only 20-100 in each eye. The retinoscope showed a hypermetropia of one dioptré and the ophthalmoscope a chronic passive congestion of the fundus, no cause for the condition could be found except that he had been in the habit of standing on his head and hanging by his feet at frequent intervals, and for considerable periods of time, in imitation of acrobat performers. An upright position was enjoined and in due time the vision became 20-20 with one dioptré of hypermetropia.—Dr. Fred McKenny Ruby, *Ophthalmology*.

WILLIAM SPENCER, M. D.

RADIUM THERAPY IN EYE DISEASE.—The authors, in a very thorough and valuable essay on the subject, begin by describing their methods. The eye is cocaineized and radium in sealed glass tubes, permitting only the passage of the Beta and Gamma rays, is applied directly to the affected part. The operator's fingers are protected by wrappings of lead foil. Forty-six cases are tabulated and details of the treatment given. No single instances have been observed of ill effects from the use of radium. No increase of inflammation has occurred in a single case. Five minutes exposure was given, as a rule, through MacKenzie Davidson, in treating a case of rodent ulcer, found that a tube of twenty to thirty milligrammes could stay for one-half hour on the lid, without causing any ill effects to the eye. The frequency of the exposure was determined by the nature of the case, but if a large dose was used, a week was generally allowed to elapse between treatments. The immediate effect to the eye was practically nil, slight photophobia and irritation. A few hours after the sitting, some patients complained of pain, which in a few instances was severe enough to cause a sleepless night. Usually this passes off within twenty-four hours, but in one or two instances it lasted for several days. Only one case had retinal symptoms. The patient was suffering from an attack of episcleritis, and a large amount, 50 Mg., was applied for five minutes to the sclerotic. For two hours the patient noticed flashes of light. After the first irritation of the treatment had worn off, the subjective symptoms speedily improved and pain subsided. This speedy anesthesia, if it may be so called, is a very striking feature of the treatment of ulceration of the cornea. In the treatment of ulceration of the cornea, especially of intractable cases, the results were universally good, with one exception. Certain non-ulcerative acute inflammations of the cornea and sclera were treated. Severe cases of interstitial keratitis were treated and one or two rather striking results were obtained. Spring Catarrh was very successfully treated. Corneal Nebulae did not improve much, but the authors think that a more extended effort should be made in this class of cases.—Arnold Lawson and Davidson J. MacKenzie. *Brit. Med. Jour.*

WILLIAM SPENCER, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

GOSSEPIUM.—“Gossypium may be noted for its kindly action upon the system, and is not unpleasant. It is also true of this remedy, as with many others that are very valuable, that it is slow in its action in chronic cases. This remedy has been from the first thought of as a stimulant, a powerful stimulant to the genital tract. It is not to this use, however, that I beg to call your attention; for its entire field has been in times past as an emmenagogue. In chronic cases we often find the patient complaining of pain in the cervical region, with a tendency for the head to draw backward, with nervousness. Here the field, is most its own, as I know of no other remedy that is so certain in its action. In slender, pale-faced girls, between the ages of twelve and twenty, losing flesh, morning cough, irregular appetite, and even in a few cases so far as to have hectic fever, nervousness, nervous chills, etc., when the patient is tall and bloodless—it seems that it is in this class of patients that the results have been best. In these cases also there may be scant menstruation or neuralgic dysmenorrhea. In cases, old or young, where there seems to be a lack of good red blood, here is the picture for gossypium.

“In tall, slender, place-faced boys, with a tendency to nervousness, nervous chills. It may be, if we are seeing no improvement, we are thinking of a change of climate for this boy. Here we get the beneficial action of this remedy, all other conditions being favorable. The weight will increase, a regular appetite will be restored, and general development will be rapid.

“In hysteria, in acute attack, when remedies of the antispasmodic class have failed, I have seen the conditions subside promptly. In this condition we gave the remedy in fair-sized doses; and even when the strongest remedies, and even lobelia, has failed, this remedy has pleasantly and most effectually controlled all conditions present.”—Dr. Herbert T. Webster, in August *Eclectic Medical Journal*.

(The negro women of the South, commonly chew the cotton-root to procure abortions.) (Ed.)

HOMOEOPATHIC REMEDIES IN CATALEPSY.—There are only a few remedies indicated in catalepsy and they are: acon., agar., art. v., cic., cham., coff., con., diad., ferr., gels., hyos., ign., ip., lach., op., nat. m., plat., sabad., stram., thuja. Each one of these remedies has its own peculiar *sum total* of symptoms and conditions and must not be confused, one with another.

Let us study *aconite* first. This remedy is excitable, very sensitive to impressions, easily frightened, with a psychical state of fear in more

or less aggravated form. When an individual with such or similar constitution becomes frightened, and this fright causes an attack of catalepsy, *aconite* is the remedy for the attack, and the judicious administration of this remedy at proper intervals will prevent subsequent attacks when frightened.

In the study of *agaricus* you will have a history of muscular twitchings of eyelids and eyeballs; of the cheeks; of the chest; in the abdomen. Or there may have been or still are involuntary movements of limbs, or voluntary muscles when awake with complete cessation of movement when asleep. You will observe an unsteady gait in walking; tearing, darting, twitching pains here and there, but more particularly in the gluteal muscles. In searching for a more material cause of these peculiar nervous movements and pains you may discover softening of the spinal cord. Whether there is softening of the spinal cord or not, if these nervous symptoms are present and your patient is aggravated from cold or from getting cold, parts here and there burn and itch as if frozen and catalepsy is brought on by protracted mental application or debauch, your remedy is *agaricus*. This, I repeat, will not only modify future attacks, but when judiciously administered will cure the cataleptic *dis-crasia*.

Artemisia vulgaris diverges into another line, different from the preceding, and very unique. This remedy is particularly suited to excitable and irritable people, especially children, with some convulsive manifestations after a fright, excitement or irritability.

We are left again without pathology, and we are forced to prescribe on symptoms only.

Our symptomatology in catalepsy, where *art. v.* is indicated, is very meager, but to the point. Here it is: "Having the excitable and irritable individual, one easily provoked into convulsions, and catalepsy following physical exertion, or catalepsy induced by simple allusion to the disease, and you have *ortemisia vulgaris*."

Cicuta virosa we have a remedy full of nerve disturbances. It has, in its pathogenesis the most violent attacks of epilepsy, vertigo, mania, dementia and other forms of cerebral and spinal disturbances. In catalepsy it is limited, to a very great extent, to traumatic forms of the disease. Injuries to the head, injuries to the spine resulting in cataleptic convulsions point sharply to *cicuta*. The convulsion itself is characterized by a tetanic rigidity with great muscular weakness following the attack. It is not necessary that the injury affect the deeper nerve fibre or centres, but injuries to the periphery. The whipping of a sensitive child has caused catalepsy.

Chamomilla asks for some room in the study and cure of catalepsy. Its story is a brief one. The first consideration it demands is in the study of its pains. No matter where they are, they are always severe. They seem to be worse than any pains others may have, and these pains cause great irritability. *Chamomilla* is so sensitive, mentally and physically, that the slightest pain causes anger, and this anger often becomes so intense that we have a multiplicity of nervous disturbances, one of which is catalepsy—hence, *catalepsy from anger, chamomilla*.—Dr. Geo. E. Dienst, *September Critique*.

THE HAHNEMANNIAN MONTHLY.

NOVEMBER, 1911

THE SPINAL CORD SCLEROSSES DUE TO THE ANEMIAS.

BY CHARLES D. FOX, M. D., PHILADELPHIA.

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(Read before the Clinico-Pathologic Society.)

In common with other wasting diseases, pernicious anæmia is capable of effecting sclerosis of the white columns of the spinal cord. Most commonly the posterior columns alone are affected—posterior sclerosis. Next in frequency the sclerosis involves the crossed pyramidal tracts as well as the posterior columns—postero-lateral, or combined, sclerosis. In many cases the sclerosis is more or less diffuse, and all of the white columns may become degenerated.

Anæmic scleroses of the cord are not early manifestations of anæmia; they may appear months or years after the onset of the disease, and occasionally cases occur in which the development of sclerosis of the cord appears to be delayed until shortly before death.

Concerning the frequency of scleroses of the cord in pernicious anæmia; in 17 cases of the disease Nonne found 10 in which the spinal cord was degenerated, and of these only two had presented symptoms of cord lesions. Scleroses of the cord are not confined to pernicious anæmia, however, for they may occur in any kind of anæmia or wasting disease.

The symptomatology of anæmic sclerosis of the cord naturally varies according to the columns affected. Posterior sclerosis occasions ataxia, pains, paræsthesia, numbness, girdle sen-

sation, impairment or loss of the deep reflexes, urinary and faecal incontinence, and sexual disabilities. Postero-lateral sclerosis results in ataxic paraplegia with such symptoms as ataxia, pain, paræsthesia, numbness, girdle sensation, spastic paraplegia, exaggerated reflexes, clonus, spasticity, Babinski sign, urinary and faecal incontinence, and loss of sexual ability. When the antero-lateral ascending columns, or columns of Gowers, are affected disturbances of the temperature sense are encountered. Occasionally atrophy of the optic nerves is found in anæmic sclerosis. Usually death occurs within one or several years after the onset of the cord symptoms.

Of the pathologic spinal cords that find their way to the neurologic laboratory of the Hahnemann Medical College, anæmic sclerosis is by far the most frequent lesion. It must be remembered, however, that the Hahnemann Hospital, from which most of these specimens are obtained, does not permit the admittance of patients with chronic organic cord diseases unless they are complicated by some other conditions more amenable to treatment. But cases of pernicious anæmia are not excluded; hence the comparative frequency of specimens of anæmic sclerosis of the cord in this laboratory.

The following case is reported because it demonstrates how closely anæmic sclerosis of the cord can mimic other organic spinal cord diseases. On the basis of my experience with this case, as well as other similarly uncertain ones, I believe that when organic cord symptoms are found in association with suspected anæmia the diagnosis anæmic sclerosis of the cord should be favored even though the clinical signs may not be typical of this complication nor the blood findings entirely in accordance with those characteristic of the anæmias.

Case. Eight years ago Mrs. M., aet. 44, began to complain of numbness and pain in the feet. Gradually these manifestations spread upward until the whole of the lower extremities and the lumbar region were similarly affected. Later ataxia appeared and gradually increased in severity with the consequence that often she had fallen while walking. In addition to these symptoms she had complained of a girdle sensation and of difficulty in controlling the action of her bladder and bowels. More specifically, she was compelled to go to the toilet as soon as the desire was experienced; otherwise involuntary urination or involuntary defæcation occurred. About three years ago paraplegia set in and progressively increased so that three

months before admission to the Hahnemann Hospital, September 22, 1910, she became totally unable to walk. While an inmate of the hospital she complained bitterly of severe pain in the lumbar region and in the lower extremities. Former syphilitic infection almost positively could be excluded.

The physical examination showed that the pupils were equal, normal in size, and reacted well to light and accommodation. The eyes could be moved freely in all directions, but slight nystagmus of lateral fixation was noticed. The dynamometer registered her grips as R. 12, L. 10. Though this amount of gripping force is only about half of what the normal adult woman is capable of exerting, yet it is not any less than would be expected as the result of advanced anæmia and prolonged confinement to bed.

Examination of the lower half of the body was rewarded by the demonstration of physical signs possessing greater diagnostic significance. Thus the patellar reflexes were lost, and moderate atrophy was apparent in both lower extremities; the left one being more severely affected. In the same parts reduction in strength, greatly in excess of that apparent in the upper extremities, was sufficiently advanced to constitute incomplete but actual paralysis. Neither spasticity nor clonus could be elicited. In spite of these signs of lower motor neurone disease affecting the lower extremities a well marked bilateral Babinski sign was found. Sensibility to tactual and to painful stimuli was moderately decreased in the whole of the body below the level of the umbilicus. In the same region coldness was recognized as such, but hot objects almost constantly were said to be cold. Decided general emaciation and slight pallor were apparent. The urine was found to be normal. Dr. J. G. Wurtz's record of the blood examination is as follows:

Red blood corpus-	Leucocytes ... (100 counted)	
cles 2,930,000	Polynuclear 69%	5658
Hæmaglobin 83%	Mononuclear ... 30%	2460
Color index 1.4	Eosinophiles 1%	82

One polychromatic red cell during the count. Red cells fairly well filled and fairly regular in size and shape. Very slight poikilocytosis. Blood plates present. No nucleated reds in specimen.

Immediately following admission to the hospital the patient's temperature began to rise so that on the second day it was

102 3-5, with corresponding alteration in the respiratory and cardiac rate. The action of the bowels became involuntary, urinary retention developed, and delirium appeared. The type of respiration was quite suggestive of pneumonia, but Dr. Golden found the lungs normal. In order to eliminate typhoid as a cause of the febrile delirium a specimen of the blood was sent to the pathologic laboratory, but the Widal test proved to be negative. Towards the last the temperature became subnormal, and on the seventh day the patient died, apparently from no other cause than exhaustion.

Unfortunately the autopsy was restricted to the spinal cord. Sections of the cord stained according to the Pal-Weigert technique show advanced degeneration of the posterior columns and of the direct cerebellar tracts. The crossed pyramidal tracts were less severely degenerated as we would expect to find inasmuch as paraplegia had been present only three years, while ataxia had existed eight years. The antero-lateral ascending tracts and the direct pyramidal tracts also were affected, but the degeneration in these regions was only moderate in degree.

The character and mode of onset of this patient's symptoms was extremely significant of a tumor of the upper lumbar and of the eleventh and twelfth dorsal segments. The loss of sensibility extending to the level of the umbilicus certainly was indicative of a lesion which terminated at about the level of the eleventh dorsal segment. As a tumor in the upper lumbar region probably would occasion lower motor neurone symptoms in those parts whose nerve supply arose in the upper lumbar segments, and upper motor neurone symptoms in the distribution of the spinal cord below the tumor, one would expect to find, as in this case, an atrophic type of paraplegia, loss of the patellar reflexes, and absence of spasticity in association with the Babinski sign and ankle clonus. The patient obviously being anæmic the differential diagnosis between tumor of the upper lumbar region and anæmic sclerosis of the cord was carefully considered, but as Dr. Sappington hesitated in assigning the blood findings to pernicious anæmia, the most frequent cause of posterior, postero-lateral, and diffuse sclerosis, the diagnosis tumor of the upper lumbar region certainly was justified in view of the presence of unequivocal signs of such a lesion.

ULCER OF THE STOMACH.*

BY FRANK R. FLEMING, M. D., PHILADELPHIA.

DEFINITION.—Peptic ulcer is a condition in which there is a destruction of a limited portion of the mucous membrane of the stomach, resulting in a lesion which does not tend to heal; and accompanied by certain gastric symptoms such as dyspepsia, pain, vomiting and hematemesis.

Etiology.—Peptic ulcer occurs in about 5 per cent. of all autopsies, although authorities do not agree upon this figure, others give percentage from one to as high as ten.

Sex.—This condition occurs more frequently in females than in males. 60 per cent. in women and 40 per cent. in men.

Age.—In the female, it occurs most commonly between the ages of twenty and forty, and in males usually between thirty-five and fifty. It has been found in infants, and is not uncommon in childhood, while it is not rare in old age.

Occupation.—Cooks, tailors, and shoemakers seem to be liable to this disease, although probably this is merely coincidental. Servant girls are prone to it, probably from their irregularity in eating.

Traumatism.—A single trauma is probably not sufficient to cause an ulcer of the stomach. Foreign bodies, such as knives, have caused abrasion of the mucous membrane with hemorrhage, without resulting in an ulcer. There have been cases in which pressure at the costal margin has produced atrophy of the mucous membrane, especially if there has been anæmia in the patient previously.

Associated Diseases.—Anæmia and chlorosis seem to be predisposing factors in the production of this condition, especially as hyperchlorhydria is frequently associated with these conditions. As to the primary cause of the condition, authorities differ considerably, some adhere to the neurotrophic theory, some to the theory of diminished alkalinity of the blood, while others hold to the thrombotic or embolic theory.

Morbid Anatomy.—There is usually a single ulcer, but they may be multiple. They vary in size from that of a pea to a diameter of from five to six inches,—the average being about the size of a five cent piece. The ulcer most commonly is situated on the posterior wall at the pyloric end of the stomach at

*This essay was awarded the prize of twenty-five dollars offered by Dr. H. M. Eberhard for the best essay on some disease of the stomach by a member of the graduating class of the Hahnemann Medical College.

or near the lesser curvature. It is not nearly so frequently found on the anterior wall.

There are the acute and the chronic varieties of ulcer. The acute ulcer is usually small, punched out, clean cut edges, with a smooth floor, either of the submucosa or the muscular tissue, with no thickening of the peritoneal coat.

The chronic variety is of large size, the margin is sinuous and the whole ulcer indurated, and if situated near the pylorus on the anterior surface, it may feel like a tumor on palpation.

The floor of an ulcer may be either the submucosa, the muscular layer, the serous layer, or an adjacent organ to which the stomach has become adherent.

In the healing of an ulcer, if the mucosa only is involved, granulation tissue springs from the floor and edges and finally leaves a smooth scar. If the ulcer be a large one and involves the deeper layers of the stomach wall, then the scar tissue will necessarily be more extensive, and the contraction of the same will be more serious—if at the pylorus, may cause marked obstruction; if a girdle ulcer, then may produce the hourglass contraction.

If the necrosis progresses, there may result erosion of a blood vessel and hemorrhage or perforation. Erosion of a large blood vessel usually occurs in the chronic form, however, it may occur with the acute also, and the resulting hemorrhage may be slight and pass off by way of the intestines or may be quite severe and at times has been found to be fatal.

However, the ulcer may progress, the gastric wall become thinned out, and perforation into the peritoneal or lesser peritoneal cavity occur, with the accompanying symptoms. Fortunately, this rarely occurs, as nature usually causes a localized peritonitis about the ulcer, and this in turn causes adhesions to other organs so that if perforation does occur the contents of the stomach are thrown into the other organ, and not into the peritoneal cavity. Thus adhesions may form to the transverse colon, pancreas, diaphragm and pleura or pericardium.

Symptoms.—Some cases present the typical symptoms, in which event the diagnosis is simple; other cases simply present symptoms of hyperchlorhydria or dyspepsia; other cases seem latent and are come upon by accident or some of these latent cases are suddenly seized with hematemesis or symptoms of perforation and peritonitis. Other cases become anæmic sud-

denly and show symptoms of internal hemorrhage, and on careful examination of feces, blood is found.

The symptoms that would suggest a peptic ulcer are: Dyspepsia, may be slight and unnoticed or quite severe. Usually there is a feeling of fullness and pressure after eating, which after repeated attacks becomes more severe and finally develops into epigastric pain. The pain occurs from a few minutes to a half, or even three to four hours after eating. It is aggravated by coarse food, and great quantity, increased by pressure. It is a burning, gnawing pain, not continuous as in cancer, and there are periods of relief. Later on, vomiting may occur which is usually very sour and very acid, but it gives relief. Relief is also brought on by drinking alkaline drinks. The appetite is variable, at times the patient becomes hungry but is afraid to eat on account of the pain it gives. These dyspeptic symptoms continue with periods of remission and exacerbation. From time to time, then suddenly hemorrhage occurs, visibly present in one-third to one-half the cases, and in a very large percentage of cases, occurs in the feces as occult blood.

Hemorrhage is present in about one half of the cases, either slight or more commonly, profuse. In the case in which there is but slight hemorrhage, there is no vomiting of blood, but the patient becomes pale, faint and has a cold sweat on the body, and probably in twenty-four hours the stool becomes tarry or there will be occult blood in it, found by means of Weber's test—benzidine test. Progressive anæmia has been caused by small repeated hemorrhages of this kind.

More commonly the patient experiences a sense of fulness after a meal and then becomes nauseated and restless; then hematemesis follows, usually large in amount and bright red and fluid, although if the blood mixes with the food and remains in the stomach for a while, then it may be greatly changed—liver color, brown or even like coffee grounds.

Patients rarely die from these hemorrhages directly, but there may result a severe type of secondary anæmia, convulsions due to anæmia of the brain or hemiplegia from thrombosis or amaurosis. There is usually a temporary rise in temperature with the collapse and anæmia, but a persistent temperature points to a complication. There is also a bright red and clean tongue; rarely does one find a coated tongue.

The amount of blood lost does not seem to depend upon the size of the ulcer, as there have occurred fatal hemorrhages from

small erosions which upon the operating table could not be found.

Pain is a more or less constant symptom, usually epigastric in location, most commonly in the medium line, just below the tip of the ensiform. Occasionally, it is to the right or left of this area, usually lying in a circular area of one to two inches in diameter. The pain varies greatly in its character, gnawing and burning, and at times there may be sharp pains. It comes on in paroxysms of intense gastralgia in the epigastrium and radiating to the back, about the region of the tenth dorsal vertebra. The attacks are most frequently brought on by eating and occur at varying periods after the meal, from one-half to four hours, but the period is always the same in the one individual, some physicians saying that the nearer to the cardiac end of the stomach the ulcer is, the earlier the pain comes on. The attacks occur at intervals of several weeks to several months, and then followed by periods of relief. The patient is afforded some relief and comfort when taking a position so that the ulcer remains above the gastric contents—thus, if ulcer be on anterior wall the most comfortable position is lying on back, or if the ulcer be on the lesser curvature, the most comfortable position is standing.

Tenderness on pressure is a frequent symptom, but pressure in the region of the stomach should be made with the greatest care, as rupture of the ulcer is said to have been induced by rough manipulation.

Loss of weight results from the prolonged dyspepsia, but it rarely reaches extreme anæmia, as in cancer, except in a marked cicatricial contraction at the pylorus. At times the extreme anæmia cannot be explained by loss of blood.

Hydrochloric acid is excessive in about 95 per cent. of the cases; the total acidity is high; free HCl is increased and there is no mucous secreted. However, the absence of HCl does not exclude the presence of ulcer as in a few cases there is a sub-acidity, while in a very few there occurs an achylia gastrica. In all doubtful cases the stools should be examined for occult blood.

Complications.—Perforation and general peritonitis, sacculated abscess, adhesions to other viscera, with or without perforation to them, pyloric stenosis, stenosis of the cardia, sub-phrenic abscess, hour-glass stomach, and external fistulous opening.

Perforation occurs in from 6 to 7 per cent. of the cases. The symptoms accompanying perforation are—sudden severe pain, vomiting, shock, rigidity of the abdominal muscles, distension of the abdomen, tenderness on pressure. Then follows the symptoms of peritonitis—rapid, feeble pulse, slight rise in temperature, vomiting, facies Hippocratica, coma, and death. A polynuclear leucocytosis is also present. The symptoms are much less severe and are localized if there be a circumscribed abscess formed. There may also be perforation into an organ to which the stomach has become adherent.

Diagnosis.—In a typical case the diagnosis is quite simple, being made upon the chronic dyspepsia with its periods of remission and exacerbation, hematemesis, epigastric pain, circumscribed—present during the digestive process, dorsal pain, tenderness in the epigastric region, and vomiting.

Differential Diagnosis.—Cancer. Patient usually past forty years of age, more frequently in men, pain less intense, but continuous, no periods of relief, no dorsal pain, tongue coated thickly, fetid odor to the breath, vomiting once or twice a day, and not usually after meals, blood frequently present in small amounts—usually coffee-grounds in color, a tumor is palpable in the epigastric region—nodular, hard, and tender. HCl is diminished or absent and lactic acid is present, patient is cachectic, exhausted and weak. Moderate leucocytosis is present—eosinophilia.

Hyperchlorhydria—occurs at all ages, except youth, more in men, and patient is usually only pale. Pain comes on several hours after meals, and is relieved by alkaline foods or drink. Dorsal pain is absent, appetite is increased, tongue usually clean or furred slightly, water brash and pyrosis present, no hematemesis. HCl increased, but no lactic acid.

Duodenal Ulcer.—At times it is impossible to differentiate. But it is more frequent in males, pain comes on later, pain and tenderness to the right of median line, hematemesis not frequent, occult blood frequently found in stool.

Gastric Crisis of Locomotor Ataxia.—Absence of patellar reflexes, Romberg symptom and the Argyl-Robertson pupil will differentiate them.

Course.—Gastric ulcer runs a varied course, at times running a rapid course with death from hemorrhage or perforation. A case has been reported that ran thirty years. Usually about 18 per cent. of the cases last one year or less, and 46 per

cent. from one to six years, often intermissions of improvement and exacerbation. At times the patient becomes a chronic invalid.

Prognosis.—The more recent the ulcer the more favorable the prognosis as to cure except in the fulminating cases. The position of the ulcer modifies the prognosis—if on the anterior wall, perforation is more likely to occur, if at the pylorus, stenosis and dilatation of the stomach results and if a hypersecretion be associated the results are less favorable. The mortality is between 8 and 10 per cent.

Treatment.—At post mortem a large number of ulcers have been found completely healed, but this process is slow and tedious—requiring months and years.

Absolute rest in bed is the first essential and this should be for a period of from two to four weeks. Next to this the diet is of great importance. Theoretically to stop all foods by mouth and give the stomach absolute rest and feed the patient by rectal alimentation would be ideal, but from the practical standpoint this is not so ideal as the patient does not get the required food and thus they become weaker and it does not have any effect upon the secretion of HCl. Much better is careful diet which will be easily digested and given at stated intervals. Lenhartz believes in improving the general condition of the patient as soon as possible and thus hasten the healing of the ulcer. In some cases the irritability of the stomach is so great as to prohibit the smallest quantity of food in it, in which case lavage may be practiced, if necessary, every morning with mildly alkaline water; but at times ill effects follow the careful use of the stomach tube. Milk diet is very good—3 to 4 ounces every two hours and at times egg albumen may be substituted. After a week to ten days if the condition improves, scraped beef, chicken, sweetbreads, and farinaceous puddings of milk and egg may be given. A very useful measure is the local application of warm or cold fomentations to the epigastrium. For the protection of the gastric mucous membrane and to lessen the secretion of HCl olive oil may be used—1-2 drachm—t. i. d. before meals. Large doses of bismuth may be used as a protective layer to the ulcer and prevent irritation. To neutralize the HCl, which is quite important, one may use alkalies as magnesia usta, milk of magnesia, and bicarbonate of soda, and belladonna to lessen the secretions.

Lenhartz's method of treatment is at the present time prob-

ably the most frequently used of any of the methods. It consists in the following: "Absolute rest in bed for at least four weeks. All mental excitement to be avoided. An ice bag is placed upon the stomach and kept there for two weeks almost continually. This prevents gaseous distension and promotes contraction of the stomach walls, thus tending to obviate hemorrhage, and eases the pain when present. On the first day the patient receives between 200 and 300 c.c. of milk given in teaspoonfuls and from two to three or four raw eggs within the first 24 hours. At the same time bismuth subnitrate is given twice or three times a day, 2 gms. per dose, and continued for ten days. The eggs are beaten up entire (with a little sugar), and the cup containing them is placed in a dish filled with ice, so that they remain cold. This food at once "binds" the supersecretion of acid and therefore mitigates the pain rapidly, and causes the vomiting, often quite troublesome, to cease. The portion of milk is increased daily 100 c.c. and at the same time one additional egg is given, so that at the end of the first week the patient is receiving 800 c.c. of milk and from six to eight eggs. Both these foods are now continued in the same amount *pro die* for another week, no more than one litre of milk a day is allowed at any time. Besides milk and eggs, some raw chopped meat is given from the fourth to the eighth day, usually the sixth, 35 gms. *pro die*, in small divided doses, (stirred up with the eggs or given alone); the day after, 70 gms., and later possibly more if well digested. The patient is now able to take some rice, well cooked, and a little zwiebach (softened). In the third week, quite a mixed diet is tolerated, the meat being given now, well cooked or lightly boiled."

All heavy foods and foods tending to produce flatulence, are prohibited. The patient is given strict instructions to masticate the food thoroughly. The bowels are allowed to remain constipated for the first week in order to prevent any peristaltic irritation and to permit of the reabsorption of any blood which may have passed into the intestines. Then small glycerine injections may be used or warm water, and about the third week a daily movement is desired.

For the anæmia—Blaud's pills and arsenic. Then there is a modified Lenhartz's method. Schmidt also uses Lenhartz's method, but does not increase the diet so rapidly.

For Hemorrhage.—Absolute rest in bed, ice bag to the epigastrium; immediate injection of morphine sulphate, gr. 1-8

to 1-4. One to two teaspoonfuls of a 5 to 10 per cent. solution of gelatine (cold), should be given by mouth every half hour for ten to twelve hours, even if vomiting is present. A 5 per cent. gelatine solution containing 2 per cent. calcium chloride, is recommended by Tremoliers.

Adrenalin chloride 1:1000, 10 to 15 drops, have been recommended also, given hypodermically. Wiel advises lavage of hot water at 42° C., but this is doubted by some to be of any value, while others fear to use a stomach tube.

For thirst.—The cold gelatin water used for hemorrhage will allay the thirst also. Small pieces of gauze dipped in cold water and held in the mouth, is frequently very good. Proctoclysis may also be used. Vomiting is relieved by the Lennhartz's treatment. Bismuth subnitrate gr. 2, and cerium oxalate gr. 1, may be used.

Pain.—A Rose belt will at times alleviate this symptom.

Perforation.—Temporarily, rectal feeding, hypodermic of morphia, ice bag to the epigastrium. Then, immediate laparotomy should be undertaken. In recurring acute hemorrhages, surgical treatment will bring about a cure.

Lastly, but by no means least, is the indicated homœopathic remedy which, if properly selected, often alleviates the symptoms and frequently helps to bring about a good result. The remedies most frequently called for are belladonna, argentum nitricum, kali bichromicum, phosphorus, arsenicum album, creosote, bismuth, carbolic acid, cadmium sulphate and atropine.

THE REALM OF NON-PHARMACAL THERAPEUTICS.

BY WILLIAM F. BAKER, A. M., M. D., PHILADLPHIA.

(Read before the Pennsylvania Society of Physical Therapy.)

As an enthusiast in this direction permit me to review some of the more recent advances in the direction of non-pharmacal therapeutics. It has not been a great length of time ago that a physician could confine his armamentarium within the confines of a small desk and a prescription pad, but to-day the patients are expecting the doctor "to do something for them." It is this "something" that I wish to call your attention to this evening. With the advent of the sera and other immunizing

animal derivatives, organic combinations of drugs, etc., the doctor is called upon to often set aside his well known remedies, and adopt for the time being, some new idea advanced. The department of non-pharmaceutical therapeutics does not demand a setting aside of well known and tried remedies, and in fact so far as we know, has no other influence but as an adjuvant. Does this not truly appeal to the homœopath whose doctrine is his life, because of its truth? Can he not with all grace accept the non-pharmaceutical adjuvants to his therapy without disturbing his belief and confidence in his similar remedy? Indeed this field appeals especially to the homœopath and should be generally adopted by him.

Aside from the moral effect on the practitioner who changes his views concerning his remedies, there is a reactionary state of approaching agnosticism which is anything but favorable to progress. In the realm of the non-pharmaceutical therapy no such action is demanded. It must be looked upon as an assistant to the relief of the sick and to the curative value of the remedy used.

Let me briefly describe some essential features of non-pharmaceutical therapeutics: 1, rest; 2, diet; 3, exercise; 4, massage; 5, baths; 6, electricity; 7, Occupation; 8, psychic measures; 9, X-rays.

REST.

The value of rest, both partial and complete cannot be overestimated; the word in itself spells health and recovery. There are countless conditions, both functional and organic, that can be eliminated by rest. The restorative value of it can never be overestimated, especially in the young and undeveloped. Williams lays stress upon the error of prescribing rest before a clear diagnosis has shown that it is required. A false belief in one's own inability or exhaustion is a common defense against responsibilities requiring effort. The real need is re-education and training to bear the task.

DIET.

An excessive amount of protein, especially at the evening meal, is often responsible for exacerbation of phobias and for emotional agitation. The stimulus to oxidation afforded by exercise should therefore precede and follow ingestion of pro-

tein, so the chief meal should be at mid-day. Insufficient protein, on the other hand, produces a psychasthenic depression. To prevent intoxication, the saline element, fruit, fibre and cellulose should be abundant. To increase the flow of gastric juice and thus prevent fermentation and aid nutrition the food should be tastefully prepared and enjoyed in pleasant surroundings.

EXERCISE.

Muscular exercise is of help in aiding metabolism. Williams emphasizes the importance of systematic and persistent exercise in the treatment of paralysis, convulsive states, occupation neuroses and stammering; and the re-education of aphasics.

MASSAGE.

Massage is the most powerful means of removing catabolic products stagnating in the lymphatics. It is borne more easily in painful peripheral affections than are muscular contractions. Sciatica, due to a definite neuritis, is greatly helped by the improved nutrition and dispersal of microscopic exudates.

BATHS.

The indiscriminate prescription of hydrotherapy in neurotic states has done much harm; for instance in hysteria, where the systematic use of the cold douche is barbarism, drawing the attention to the unpleasant sensation and not to the matter causing the morbid symptoms. It is thus, if anything, harmful to the patient's mind, and this is hardly compensated for by any benefit to the body.

The cold bath is chiefly indicated in neurotic states, of which indolence is a feature. Besides the calming influence and the eliminative effect of warm baths their usefulness in minimizing the tension of the muscles in meningitis must not be forgotten, and the suspension of the body in water facilitates the first feeble movements during the recovery from poliomyelitis.

ELECTRICITY.

Electricity is especially useful in maintaining life in muscles which would degenerate from injury or disease of their

peripheral motor neurons, as in polyomyelitis and trauma of peripheral nerves. Many authors believe that the intelligent application of galvanism fosters regeneration of the tissues.

OCCUPATION.

The various kinds of diversions prescribed to assuage the mental sufferings are only temporary benefit and keep the patient's attention upon his health. Diversion is best procured by means of tasks to be performed rather for themselves than for health's sake, and productive and remunerative work is better than hobbies in this respect. But the work must be of interest to the patient, if it is to be of therapeutic value and in adapting the task to the patient's capabilities lies the skill of the physician.

PSYCHIC MEASURES.

Psychic measures can only be based upon thorough analysis of the pathogenesis. Real psychotherapy begins, not by encouragement, but by enlightenment. The patient must first learn from the physician to understand himself, and then the encouragement follows from the patient's own appreciation of his improvement and by his learning the fact that his affection is not so peculiar as he believed.

AUTOGENOUS VACCINES AS APPLYING TO THE LAW OF HOMOEOPATHY, WITH REPORT OF CASES.

A. M. MOORE, M. D., BRIGHTON, COLORADO.

(Read before the Colorado State Homœopathic Medical Society.)

INOCULATIONS with dead, attenuated and even fully virulent bacteria, and extracts of their cells have been employed to some extent as prophylactic and curative measures in combating the ravages of certain infectious diseases during the past quarter of a century or more.

In spite of the accumulated experimental evidence demonstrating the value of these agents in inducing immunity, their employment was not at all general. Comparatively little attention was directed toward this phase of therapeutics by the practitioner until Wright, of London advanced a new theory

regarding immunity, namely, the opsonic, and advocated the employment of bacterial vaccines in the treatment of certain infections, and Wright, with other investigators are developing prophylactic measures against various diseases, advancing at the same time the ingenious method of checking the results by determining the opsonic value of the serum.

This gives something tangible as regards when, where, and how to employ bacterial vaccines as therapeutic agents, and the attention of the profession was attracted and the medical journals were filled with reports of clinical results. Many attended Wright's clinic to study under his direction, and the enterprising pharmaceutical manufacturer placed such vaccines upon the market in great numbers which were used in a haste to be early in the publication of results and that frequently with little knowledge or forethought on the part of the physician as to the nature of the disease or the organism responsible for its existence, then negative results dampened their ardor and we are settling down to the real value of such vaccines and their field of usefulness. Particularly has it been shown that the stock vaccines are of doubtful value, and the greatest therapeutic results are to be had from the vaccine prepared from the products of the pathological process in the individual patient. This should appeal to the Homeopath with greater force than to those not knowing from experience of the law of Similars.

Wright's theory is to immunize the patient as it were after the onset of the acute infection, as well as in chronic cases applicable to such treatment by producing in the blood an excess of that element which he found to prepare the invading pathogenic germs and their products for the more ready digestion by the phagocytes of the patient's blood. This he terms "opsonin," with which you are all familiar, and which is demonstrable by control methods the details of which are set down in text books upon this subject and which it is not my purpose to enter into at this time. It was soon learned that most of the stock vaccines upon the market had an uncertain value in the treatment of disease, for the reason that the bacteria invading the blood of the patient were not always similar even though they behaved the same when cultivated, stained, etc. The most striking example of this is set forth in the works on the practice of medicine where it is shown that there are true diphtheretic bacillus, (Klebs-Löffler) and also a pseudo-diphthe-

retic bacillus, resembling so closely that the true nature of the organism can only be positively determined by clinical symptoms and animal inoculation. Stock vaccines as prepared carry the individuality of the animal or human source from which derived, and the number of organisms present in the blood in such cases is relatively few; but inasmuch as opsonin, and probably other protective substances, are not elaborated in the blood stream, the presence of the organisms in the blood has no power of exciting the production of the protective substances which are lacking. The introduction of the dead culture into the subcutaneous tissues has, however, this effect, and the substances so elaborated are rapidly carried into the general circulation to make up the defect therein present. This being Wright's theory, how important it is that the particular element lacking should be supplied from the individual requiring that particular immunity and not a vaccine derived from another source as all vaccines stocked on the market must of necessity be. It is true there are some vaccines so difficult of preparation that the stock must be used, but in most cases 24 hours is sufficient to make the autogenous vaccine.

The Allopathic school have the honors for developing this new therapeutic agency, but none the less some of their men admit that it is homœopathy, and it is to be hoped that the advocates of and adherents to the law of Similars will take up and aid in the perfecting of this new system of therapeutics.

I have two most interesting cases to report bearing upon this principle:—

Case 1:—Mrs. M. age 36, normal delivery May 5th, 1911, perineum not torn nor was the patient handled by myself after the placenta was delivered. Uneventful course until seventh day when there was a rise of temperature and pulse. The old lady attendant admitted giving four rectal injections on the fourth day and immediately thereafter a vaginal douch. A special nurse took the case at 9 P. M., May 12th, and at 2 A. M., May 13th, delirium, collapse, imperceptible pulse, etc., were noticed. I had explored the cavity of the uterus with negative results. Fowler position, saline per rectum, strychnia and nitroglycerine hypodermically, were employed and at 8 A. M., the patient was rational. A surgeon called who explored the uterus and confirmed my diagnosis of tubal abscess. At 7 A. M., May 14th, the previous normal lochia changed to pus. At 9 A. M., chills, green emesis, tympanitis and a heavy purulent lochia soon

followed, temperature 105, pulse 108, respiration 24. At 1 P. M., face puffed, eyes rolling, breath fetid, hands and feet began swelling. Quinine with turpentine stupes were added to above with negative results, except as the saline was absorbed there was some improvement. I soon began the use of *Arsenicum Album* 3x and took a specimen of the uterine discharge for preparing autogenous vaccine, which was used first at 10 P. M., May 15th, and at 3 A. M., May 16th. The temperature was then 101.6, pulse 96, at 6 P. M., the same day the highest temperature as recorded was 103, pulse 100, no more chills, vomiting ceased and the patient had four hours' normal sleep during the night. May 17th, 7 A. M., temperature normal, pulse 80. 4 P. M., temperature 100.2, pulse 84. The right iliac fossa was filled with firm sensitive tumor. *Hepar* 3x and *baptisia* tincture were given in alternation. On May 19th, 1 P. M., temperature 101, pulse 96, and a second vaccination, double the first, was given. May 20th, 8 A. M., temperature normal, pulse 80. During the day there was no rise of temperature above 100, and on May 23rd, a third vaccination was given. Further improvement followed and on May 27th, the patient ate dinner with the family. Aside from a cystitis due to the colon bacillus, the recovery was uneventful and complete. On June 24th, the last vaccination was given, the tumor was entirely absorbed and the pelvic examination negative.

I feel no hesitation in saying this patient could not have withstood the absorption 24 hours longer and the immediate reaction to the first vaccination was so marked that no fair minded observer could question the efficiency of the vaccination, which upon examination proved to contain colon bacillus in great numbers, staphylococci and a diplococci not isolated.

No such vaccine could have been had in the market, therefore the results must have been different and I say *Similia Similibus Curanter* is here vindicated.

Case No. 2:—J. A. S. present age 36, came under my care October 13th, 1906, giving a history of eleven years of stomach trouble. He vomited glary mucous, later abdominal cramps developed, much gas and constipation. I put him through much symptomatic treatment with good results until April, 1907, when he was fairly comfortable until October, 1907. It has been shown since that these attacks recurred every Spring and Fall. He was visiting in Iowa, October,

1907, and had his most severe spell, jaundice being added to the old group of symptoms.

Upon his return to Colorado, I resumed treating him and sought consultation. Stomach analysis showed total acidity 74, free HCl normal and I was assured that gastric ulcer could be excluded. The diagnosis being gall-bladder disease, operation was refused and the patient had the Spring and Fall aggravations until October, 1910. The attack of abdominal pain was so severe as to require morphia. There also developed a palpable tumor to the right of and on a line with the umbilicus, very sensitive and at times a local peritonitis over said spot. I advised exploratory operation, consultation was requested, stomach contents analyzed showing free HCl 36, total acidity 84., no lactic acid.

A diagnosis was made of adhesions which were said to involve the gall bladder, pylorus and appendix. Exploratory operation December 13th, 1910, showed gall-bladder and appendix normal, but a large infiltrated mass on the posterior and lesser curvature of the stomach, with the crater of an old ulcer for a center. The lymphatic glands were enlarged and matted together, involving the superior wall of the stomach. Doctors Freeman, Lyman, Tennant, Arniel and myself, saw the condition, and all admitted the macroscopic evidences were carcinomatous. One of the largest glands was removed, sent to the Peebles Institute for microscopical examination, and the preparation of a vaccine. The latter being my personal direction against the judgment of the surgeon.

The report came back, "Carcinoma." The vaccinations were begun at once, the slide was submitted for examination at the Johns Hopkins' Institute, also to a pathologist of national repute at Detroit, Michigan. Both said, "*Not Carcinoma*," but their statements indicated the border line was very close.

The vaccinations were weekly from December 15, 1910, to February 6th, 1911, when the second operation was made, and the change in the stomach was a revelation to all who had seen it December 13th. The infiltrated mass had vanished, there remained none of the enlarged lymphatic glands, and only the crater of the original ulcer to mark the location of the original pathological basis for our prognosis of "death in six months" which was unanimous on December 13, 1910. The ulcer was excised, the abdomen closed, and the patient had an uneventful recovery, resumed his former avocation of farming and

has directed and assisted in the work until the present time. Vaccinations were continued at intervals of one to two weeks until May 8th, 1911, when they were discontinued except as needed. This because our stock of vaccine was being exhausted. There have since been vaccinations June 27th, July 3rd, 10th, 22nd, and 29th, August 5th, and to this date September 21st, the patient has not required medical attention other than Carlsbad salts, magnesia etc., to lessen acidity and move the bowels.

In view of this one experience, I am of the opinion that a cure for the malignant growths will be worked out through autogenous vaccines, and in this connection it is proper to say, that those doing this class of work depend upon general conditions, temperature, pulse etc., and not upon opsonic indices as the guide for the repeating the vaccinations in acute conditions.

I do not wish to be understood as discrediting the use of all stock vaccines, for many of us are removed from the medical centers and cannot enjoy the facilities for preparing the fresh vaccines.

Much good has resulted from diphtheretic and tetanus antitoxines, the tuberculins and gonorrhœal serums, or vaccines, as stocked on the markets, but there can be but little doubt of the more uniform therapeutic value, were such vaccines prepared in every instance from the diseased products of the individual patient and as the medical millennium is nearer each year, I wish to add my voice to the plea for the advancement of medical science regardless of the source or the name by which it is branded. Too much credit cannot be given the A. M. A., for the good that has been accomplished by the educational work done through that organization even though our journals are filled with alarming predictions for homeopathy.

We must push for a higher standard of education for medical men, and homeopaths in particular, to the end that the distrust felt by the public toward the science of medicine, or rather the absence of science in the practice of medicine may be removed. As homœopathic practitioners we must identify ourselves with, and aid in working out these new therapeutic agencies, not losing sight of the fact that "*Similia Similibus Curanter*," is the foundation for measures more therapeutic than is now admitted.

A NOTE ON A CASE OF PARATYPHOID FEVER.

BY S. W. SAPPINGTON, M. D., PHILADELPHIA.

(Read before the Clinico-Pathologic Society of Philadelphia, May, 1911.)

CASES clinically typhoid fever may fail to give the Widal reaction, and this negative response occur on repeated tests through all periods of the disease. We exclude from this list those diseases which may be confused with typhoid fever only at the onset, and those in which the resemblance is but superficial and will not bear searching differential diagnosis. It is unfortunate, and perhaps surprising, that we frequently have to enter pulmonary tuberculosis under the latter caption. We have more than once seen subjects of pulmonary tuberculosis in its incipency diagnosed and treated as typhoid. A continued fever without obvious physical signs always spells, for some practitioners, typhoid fever.

Granted, however, an infection which careful examination has apparently reduced to the typhoid bacillus; one in which other diseases, even the truly confusing acute miliary tuberculosis and septic endocarditis, have been safely shut out; but, yet, lacking the strong confirmation of the Widal reaction. Such a case may be paratyphoid infection.

On the other hand, there are cases of apparent typhoid fever, unsatisfactory or atypic in symptomatology and course, which give a partial or complete agglutination reaction in low dilutions either in the first or subsequent tests. These, too, may possibly be paratyphoid infections.

The following case may be used in illustration:

CASE REPORT.—Mrs. S., aged 32, married, one child, previous good health except children's diseases, suddenly developed a fever. The temperature in this attack ranged from normal to 103° F. and averaged just below 101° F. There were practically no symptoms except those common to a rise of temperature such as slight headache and malaise. The pulse averaged 90; the respirations ranged from 20 to 24. The urine showed neither albumin nor sugar. The Widal reaction on the tenth day was negative.

About the twenty-first day, the temperature dropped rather sharply to normal and remained there for a week, during which time the patient was about the house. At the end of this seven days' respite, it rose suddenly to 104. F., and the patient suffered a second febrile attack of twelve days' duration with an

average temperature of 102° F. In the following five days, the temperature descended by lysis to normal. Considering the height of the temperature, the patient felt remarkably well, complaining only of headache, weakness and depression. The pulse averaged 110. There was epistaxis twice, but this occurred in connection with the menstrual flow. There was nausea and vomiting on one occasion. There were no other abdominal symptoms. Enlargement of the spleen was not detected and rose spots were not seen. The blood examination resulted as follows: Hemoglobin, 80 per cent.; red cells, 4,150,000; color index, 1; white cells, 5,900; differential count—polynuclears 78.9, lymphocytes 19.3, eosinophiles 1.8; nothing special in stained specimen. The urine on repeated examinations was free of albumin, sugar and casts. The diazo reaction was negative. A second Widal test on the fifth day of the relapse gave a partially positive but unsatisfactory reaction.

There were altogether thirty-one days of fever, a first attack of twenty-one days, a week's interval of normal temperature and a relapse lasting seventeen days, all of which time the symptoms were largely negative.

Ordinarily, such a case would be classed as a more or less atypic typhoid and of no special interest. Fortunately, on the fifth day of the relapse, blood cultures were made in ox-bile and glucose bouillon. From each of these media was obtained a pure culture of a short, actively motile bacillus, negative to Gram, and growing on agar and bouillon like the typhoid bacillus. It was further grown out for identification in various media along with controls of several strains of typhoid bacilli and stock cultures of paratyphoid bacilli A and B. The patient's bacillus failed to ferment saccharose or lactose, but produced gas in glucose bouillon. In litmus milk, it induced a slight acidity but no coagulation. It produced no indol.

Blood taken at the same time the cultures were made furnished serum for agglutination tests. The results with various stock cultures and the patient's own bacillus were as follows:

AGGLUTINATION TESTS WITH PATIENT'S SERUM.

Cultures of	Serum 1-50	Serum Dilution 1-100
Paratyphoid A	Complete	Complete
Paratyphoid B	Partial	Negative
Typhoid No. 1	Partial	Slight
Typhoid No. 2	Partial	Negative
Patient's Bacillus	Complete	Slight

Several typhoid sera, high in agglutinating properties, failed

to clump the patient's bacillus. The infection was thus identified as one due to the paratyphoid A bacillus.

Though the paratyphoid and paracolon infections are clinically identical with typhoid fever and treated alike, their proper recognition is more than a matter of diagnostic refinement or even correct statistics. The possibilities of specific treatment require it. The demonstrated protective value of prophylactic injections of typhoid vaccines make it important to know the infecting organism in each case. Whether typhoid inoculations will protect against paratyphoid A and B infections and vice versa is a practical question, as the clinical identity where the Widal test is not made may lead to confusion if paratyphoid fevers are at all frequent. And even if Widal tests are made, it has been shown that paratyphoid infections will give sera capable of agglutinating typhoid bacilli in low dilutions, and typhoid fever blood in low dilution will clump paratyphoid bacilli, so that misdiagnoses are here quite possible.

The ease with which positive blood cultures in ox-bile are made in typhoid and paratyphoid fevers makes it advisable that this should be done in every case, assuring one of an accurate diagnosis. Figures obtained in this way from many cases, in different localities and over a considerable period of time might give us some surprising information as to the relative frequency of typhoid, paratyphoid and closely allied fevers. Proescher and Roddy* in 1908-1909, in the Allegheny General Hospital, found in this way 200 cases of typhoid fever and 50 cases of paratyphoid A fever, a remarkably large proportion of the latter. The relative frequency of A and B paratyphoid infections is another interesting question which would reach solution through routine blood cultures in all cases. And finally, some of the short duration typhoid and unclassified fevers would probably receive proper assignment.

*Proescher and Roddy: *Arch. Int. Med.*, 1910, v. 263.

Transactions of the Homoeopathic Medical Society of the State of Pennsylvania

BUREAU OF OBSTETRICS

ANNA D. VARNER, M. D., Chairman

THE CERVIX IN PREGNANCY AND LABOR.

BY ANNA G. VARNER, M. D., WILKINSBURG, PA.

OBSTETRICS has come to be one of the most important sections in the State Society. It may be that in certain parts of the southwest, both Indian and white women pass through labor unattended and without interference with their daily duties; it may also be that in some localities the midwife is still looked upon as the proper attendant at an accouchment but these ideas and conditions are fast becoming obsolete and even the laity realize that in all justice to the large majority of American women the obstetrician must possess more than the ordinary amount of knowledge, a mind capable of rendering quick and right decisions and the skill to conduct the patient safely through a serious and complicated labor. We have all known the experience of making every necessary examination of the patient, attending her with great care throughout her pregnancy and with every anticipation of a practically normal labor have the case terminate in such a complicated manner as to summon into service all the nerve, skill and judgment at our command.

In most of our large towns and cities there are specialists in obstetrics who can be called upon in an emergency but hundreds of physicians are denied this opportunity. Let us then not delude ourselves with the idea that labor is practically a normal procedure but prepare with all seriousness for every possible complication.

To me, it is unutterably sad for a mother to sacrifice her life at the birth of her child. Having passed through pregnancy patiently and with joyous expectation, she has every right to live to experience the supreme joy of motherhood, and to train and develop her own offspring into young manhood and womanhood.

To this end we are in conference to-day, that by increasing our knowledge and improving our technique we may year by year diminish the serious results to the patient in labor.

The healthy woman, well formed physically should give birth to her child in a perfectly natural manner, and after her lying in period, she should be in as good condition as before her pregnancy. Among American women this has come to be the exception rather than the rule and the reasons are obvious: child labor, improper nourishment, unsanitary surroundings, marital excesses, artificial living, improper dress, the demands of society, methods lawful or otherwise used to avoid the responsibility of motherhood, all tend to debilitate and deplete the female generative organs to such an extent as to render them unfit to perform their natural functions. The women of to-day work hard, play fast. Relaxation is a lost art; nervous tension is extreme and the result is that with each succeeding generation there is a greater number of deformed pelves, more abnormal organs and, last, but not least, a neurotic condition in women anatomically perfect, so pronounced as to produce profound functional disorders, to which cause alone are due some serious and complicated labors.

The effect manifests itself in a variety of complications, but I shall confine myself to but one form—namely, where the cervix itself is chiefly concerned for, in my experience, if the cervix would only regularly, progressively and properly dilate, the patient's troubles and mine, would be diminished by half. True, the fault is not always with the cervix. Improper position with non-engagement of the presenting part, hydramnios, deformities and various other factors have an effect upon dilation but these we entirely eliminate.

In the first place, there are certain pathological conditions of the cervix, which complicate pregnancy. Endometritis for instance, is usually aggravated while erosion of the cervix may cause persistent vomiting through reflex disturbances of the stomach. Warm douches of boracic acid, glyco-thymolene, or the normal salt solution are helpful and tampons saturated with glycerine, and either hydra^{stis} or calendula, are grateful and soothing.

Carcinoma of the cervix, develops very rapidly during pregnancy. The tissues surrounding the cervix become infiltrated if radical treatment be postponed. If growth is not extensive vaginal extirpation of uterus before the fourth month is indi-

cated. In case of delay—should the child live to term, abdominal section is about the only choice, though multiple incisions may be made through the infiltrated cervix as a last resort. Septic infection is liable and the prognosis is most unfavorable.

Atresia of the cervix is rarely complete and is acquired after impregnation takes place; it is simply an agglutination of the external os. A slight depression indicates the position of the opening; pressure upon this with a uterine sound, usually causes rapid dilation, but if this is not successful, crucible incision of the cervix, must be made. Hemorrhage may follow but the radical treatment is necessary, otherwise the uterus may rupture, or cervix be torn off or head may descend covered with a distended cervix.

Cicatricial contraction or infiltration of the cervix, is due to old lacerations, operations, cauterizations, syphilis or cancer. For the last two, cervical incisions or Cæsarian sections are necessary. The others should yield to artificial dilatation, with the application of forceps and forcible delivery of the head—or version followed by rapid extraction. When version is necessary, the cervix should be dilated freely enough to admit of the closed fist, before rapid extraction is undertaken, or the cervix will contract around the neck and obstruct the extraction of the aftercoming head.

Slow dilatation causes an incarceration of anterior lip of cervix, between head and pelvic walls. Pressure causes oedema, to such an extent in some cases as to produce an obstruction. In intervals between pains, it is possible to push the anterior lip over the head.

Hypertrophy of anterior lip, or of whole intravaginal cervix, may complicate labor to such a degree as to require forcible traction with forceps or radiating incisions in cervix. Rarely longitudinal or transverse septa, are formed in cervical canal, and it may be necessary to cut these before child can be born.

A backward displacement of cervix, in primiparae, impedes the progress of labor. The external os, is inaccessible to the examining finger. The lower anterior uterine wall, is much distended, cervix undilated. An abdominal binder to pull the fundus backward and hooking the finger into the cervix, to force it forward during pains will remedy this condition.

In prolapse of uterus, it is impossible for pregnancy, to proceed to term, but the fundus may be in perfectly normal posi-

tion and the cervix so hypertrophied and elongated as to protrude from the vagina. Now while the cervix, usually retracts into the vagina during labor, in rare cases, this condition becomes aggravated and the cervical tissues so enormously swollen as to cause serious obstruction. A choice can be made here of two procedures; either apply the forceps and have the assistant make counter-traction by hooking his fingers into the cervix, or make radiating incisions and control the hemorrhage with sutures.

Rigidity of cervix, is a very common condition. It is not at all confined to elderly primiparæ, but young women under twenty-five sometimes have it to an exaggerated degree. A tough tense unyielding cervix, tries the patience of the physician, nags the patient until she loses all nerve force and self-control, weakens her to such an extent as to wholly unfit her to conclude the labor unassisted. The result is an instrumental delivery with the liability of cervical and perineal lacerations, hemorrhages &c. A rigid cervix, is due in some cases, to hard muscles—as where women take much physical exercise, in others to a cartilaginous condition of the fibres around the os uteri—again to a general neurotic condition of the patient. I am firmly convinced that in the majority of cases the nervous system is at fault, misdirecting the pains and rendering them ineffectual. These cases usually yield to mechanical assistance—either with the fingers or a tampon as a dilator. Copious douches of warm water directed against the cervix, repeated every fifteen minutes help to soften it. General anæsthesia relaxes the fibres and the indicated remedy is a wonderful help in many cases. *Caulophyllum-thalictrum*, *belladonna* and *cimicifuga*, having an especial action upon the cervical muscles while *nux vom.* and *chamomilla*, put the patient in a better frame of mind for her work. Since hearing Dr. Heimbach's paper last year I have tried Heroin 1-6 gr., with good effect in two cases, and no results whatever in the third.

A case comes to mind in which the cervix was especially tedious in its dilatation, mechanical assistance being necessary for many hours. The patient had been a physical culture teacher and was a perfect specimen of womanhood. Her muscles were all as hard as rocks, the cervix being no exception. She had been deluded with the idea that a course of osteopathic treatment, covering the entire pregnancy would so relax the muscles as to make labor practically painless. Her dis-

appointment did not seem to have a soothing effect upon her temper, so you can well imagine my relief when labor terminated.

A case of cartilagenous cervix occurred early in my practice. The foetus died about the fourth month; nausea and vomiting were extremely annoying and there was a dark brown uterine discharge. Another physician and I attempted to dilate the cervix. It seemed as tough and hard as bone. Feeling sure our efforts would incite labor pains, we awaited developments. So it happened; for three days and nights the patient suffered severe pains—in the meanwhile the skeleton of a foetus was delivered bone by bone through an opening only large enough to admit of the tip of a finger. An examination on the third day revealed the os still undilated, but there was a longitudinal slit up the side of the uterus one inch long, ruptured by the force of the pains. The two openings, were quickly made into one, the placenta delivered and the cervix was repaired later.

The worst case of undilatable cervix occurred last year. It was likewise the saddest because the patient was the first and only one lost in a private obstetrical practice extending over thirteen years. She was thirty years old, had been married ten years and it was her first confinement. She was under my care all through her pregnancy and her condition was excellent when labor began. The head was presenting, the position was good and everything was apparently normal. The pains were very severe and frequent all night long and until noon of the next day, but the cervix refused to dilate. Remedies were prescribed carefully, hot sitz baths and hot douches were used as well as every position and device that could be thought of, to no avail. General anæsthesia failed to relax the muscles and mechanical aid did very little good. Between pains the os could be stretched to the size of a quarter or a half dollar, but during each pain, not only the cervix but the whole vaginal canal would contract upon my fingers with a vise like grip that seemed almost to break them. Dr. Stewart was called in consultation and we finally managed to dilate enough to apply the forceps, and while he made traction, I worked the cervix backwards. Even when profoundly under chloroform during every pain the cervix closed up tight around the forceps. The cervix lacerated badly and we had a severe hemorrhage from the cervical artery also a bad laceration of the perineum both of which were repaired. Patient was delivered about five P.

M., and her temperature arose immediately; she was delirious before midnight and died within a week from degeneration of the liver and toxæmia from non-elimination of chloroform. When the body was embalmed, the vessels were found to be undeveloped—no larger than those of a child six years' of age which accounts for the failure to eliminate the large amount of chloroform it was necessary to give.

Laceration of the cervix occurs in many primiparæ, especially in prolonged labors. The most extensive tears are due to the application of forceps before dilatation is complete. Whenever possible it is to the best interests of the patient to wait until the os is freely dilatable. The symptoms of a severe laceration, are pains in the vagina or a hemorrhage of bright red blood. If the uterus be thoroughly contracted and the hemorrhage is not due to a vaginal laceration, the cervix should be carefully examined. Hot douches will sometimes control the bleeding, but it is safer and better to suture at once. It is not my custom to repair all lacerations of the cervix immediately after labor, but all patients are examined when they are up and about to ascertain the condition of the cervix and if there be a tear the patient is appraised of the fact and the repair of the same arranged for some future date. At the same time the position of the uterus is noted. In many instances, it will be found retroverted or slightly prolapsed. A replacement at this time and the patient advised to take the knee-chest position daily for a month, will correct this difficulty and save a radical operation in the future.

DISCUSSION.

DR. LANE: I would like to call the attention of the Society to the great opportunity for the use of the homœopathic remedy in these cases where the cervix does not dilate and where the defect is not mechanical. The remedy is very useful where the rigidity of the cervix is due to a nervous condition of the patient, which is often the case.

DR. MADDUX: I would like to call attention to the value of the type of dilator invented by Dr. Dewees,—the four pronged dilator. You can put different sized caps upon each of the four prongs, which will permit a dilatation of the cervix with less injury than any other form of mechanical dilator with which I am familiar.

DR. THEODORE J. GRAMM: I would like to call attention

to the fact that caulophyllum has a most wonderful action in these cases. The condition must be recognized in the early part of labor. We cannot allow labor to go on until dangerous symptoms occur because the cervix is not dilating, and those physiological processes are not taking place which must take place in order to bring about a dilatation of the cervix, namely, a certain amount of congestion. The cervix is not dilatable because there is not enough fluid there to separate the fibers, and in this condition where there is no cicatricial contraction you will, I think, be agreeably surprised with the action of caulophyllum.

BUREAU OF GYNECOLOGY

THEO. J. GRAMM, M. D., Chairman

THE MODERN THEORY OF ENDOMETRITIS.

BY THEODORE J. GRAMM, M. D., PHILADELPHIA.

THE general conception of endometritis as entertained until quite recently is one which has prevailed without material change since 1880, when Ruge proposed his classification. The term has doubtless been often used without sufficient regard for accuracy, and it has been applied to most of the changes within the uterus showing departures from not very well defined normal limits, without due regard to whether or not they were actually caused by inflammation. The histological cyclic changes of menstruation were not well understood, and as was long suspected in some quarters, these had not been given proper consideration in an accurate classification of endometrial changes due to disease. Moreover, inflammation as occurring in the uterus did not conform to similar processes in other parts of the body, so that processes peculiar to the uterus had to be assumed; material departures from the preconceived norm were encountered wherein the action of microorganisms could not be demonstrated; in other instances conditions denominated chronic inflammation were found which were not preceded by an acute stage. Such are some of the difficulties which everyone has encountered who has ever seriously concerned himself with this subject.

Of late, however, the necessity for a complete rearrange-

ment of our conception of chronic endometritis became obvious, and this was due mainly to the laudable work of several investigators abroad who carefully studied the histological changes of the menstrual cycle. Among those who have materially contributed to our knowledge of this subject may be mentioned Leopold (*Arch. f. Gyn. Bd. 11, 110*) who was the first, later Moericke and Mandl (*Arch. f. Gyn. Bd. 52, H3*), Westphalen (*Arch. f. Gyn. Bd. 52-33*), Theilhaber and Meier (*Arch. f. Gyn. 86-3-628*), Hitschmann and Adler (*Zeitschr. f. G. u. G. Vol. 60-63*), and in 1908 *Monatsschr. f. G. u. G. Bd. 27-1*), Holzbach (*Hegar's Beitrage z. G. u. G. 1908 Bd. 13-285*) and Iwase (*Zeitschr. f. G. u. G. 63-614*). From the splendid work of these investigators we may conclude with considerable certainty that the menstrual cyclic changes in the endometrium are fairly well understood.

Coming now to a consideration of what effect these studies have had upon the former views of chronic endometritis we find Theilhaber and Meier expressing the belief that sufficient regard has not been given to individual variations at the same time of life; to variations occurring at the various periods of life, nor to variations due to the particular stage of the menstrual cycle. They recognized that the uterus, being an organ whose several functions necessarily entailed pronounced histological changes, should be most closely studied in order to determine especially the endometrial changes which must be regarded as well within the limits of health.

In the opinion of Hitschmann and Adler, the reason why the study of endometritis has run into a false track and remains there, so that there has been but little advance in the last ten years, two causes are presented: firstly, there was an insufficient knowledge of the normal structure of the uterine mucosa. Important physiological changes of the mucous membrane were entirely overlooked, consequently the limits of the normal were entirely too circumscribed. Menstruation was not considered in the study of endometritis; if this had been done it could not have escaped the attention of investigators that certain forms of endometritis over and over again occurred only in the premenstrual time, which would have attracted more attention to the structure of the normal mucous membrane. The second deficiency, they say, consisted in that until recently the inflammatory changes of the mucosa could only imperfectly be distinguished from the non-inflammatory. In the normal en-

ometrium there exist various round cells, singly or in groups, with one nucleus filling the entire cell. If inflammation set in there arise exudates into the mucous membrane upon whose presence the diagnosis of endometritis rests. This exudate consists of cells having much the same appearance as the former. The dissemination and number of cells in endometritis leaves in the lurch at least in the chronic form. An estimation of these cells has not heretofore been possible.

As the above-named authors have pointed out there is almost a constant change in the histological conditions during the monthly cycle. Indeed they have claimed to be able to determine the exact day of the month from the examination of a slide. That the changes are as fixed in time as this, has not been confirmed by Keller and Iwase. Within certain limits, however, the changes are fairly constant. The stages of the menstrual cycle have been divided into the postmenstrual, the interval, the premenstrual, each of which continues approximately eight days, and the menstrual lasting about four days. It would be well at this point to review the microscopic characteristics of these several phases, but the time limit for this paper prevents. Knowing, however, that during the menstrual cycle the histological changes are constantly going on, it is comprehensible that the microscopic field appearances of a normal endometrium vary greatly, and these appearances are quite inconstant, so that one author has said far from the appearances of the mucous membrane being constant, their characteristic is their inconstancy. The effect upon the older theory of endometritis is manifest.

The facts heretofore reviewed indicate the necessity for a re-arrangement of our modern conception of endometritis. Hitschmann and Adler have pointed out with clearness how we must modify our interpretation of the histological appearances comprised in the classification of endometritis as proposed by Ruge and widely accepted by reason of conforming with the information until this time available. Thus of endometritis glandularis hyperplastica they have clearly shown that if we compare the description of the conditions classified under this term with the description of the premenstrual endometrium, the two coincide with exactness. In other words the changes characteristic of the premenstrual phase have been regarded as representing this form of endometritis. This is true of the distance of the glands from one another. The latter, however,

cannot be accepted as a criterium, since dilatation of the glands may cause approximation without numerical increase. The condition is somewhat simulated by the premenstrual swelling, especially since the connective tissue appears greatly reduced. It has also been shown that there are great individual variations in the structure of the endometrium, and also variations in the different parts of the same endometrium. There are, however, some cases in which the thickening of the endometrium, often approaching a polypoid state, with definite increased number of glands, cannot be regarded as normal, and such conditions are found in certain cases of functional and anatomical alterations in the ovaries, in certain cases of myoma, especially when there is a diffuse fibroid thickening. For these cases the authors have suggested that we speak of hyperplasia mucosæ glandularis, for there are no evidences of inflammation. A strict differentiation between some of the remarkable variations of the endometrium and this hyperplasia is not always possible, but it is certain that inflammation is not present.

Endometritis glandularis hypertrophica until recently has been regarded as consisting of an enlargement of the gland itself whereby there is induced a change in form in order to make room for the newly formed epithelium causing a change in length and in shape, tortuosity, projections of the epithelium into the lumen, dendritic processes or star-shaped on cross section. Extensive study of physiological alterations of the mucous membrane has shown that seven or eight days before menstruation these changes begin and gradually increase. At the same time the protoplasm of the cell increases, their outline becomes more indistinct, vacuoles appear, and the nucleus becomes paler. Then the protoplasm is broken off, the cells become lower, and the lumen of the gland is filled with mucous. In this stage there are no mitoses. These changes also, formerly classified as endometritis glandularis hypertrophica, are those occurring during the premenstrual stage and hence not pathologic but simply changes within physiological limits.

Endometritis interstitialis has always been described in an unsatisfactory way. When induced by septic infection in acute form it could be studied as Bumm has done. But the study of other forms of acute inflammation is not so easily accomplished since these not being treated by curettement, do not furnish material for microscopic examination. This is mostly true also of the subacute forms. In the chronic

form the diagnosis rested upon infiltration and stromal changes. It is always difficult to interpret the significance of round celled infiltration, and this difficulty has been recognized by several authors. The cells resemble lymphocytes, and it is not always possible to distinguish leucocytes from the small fixed stromal cells when the nucleus is large and fills almost the entire cell, as Lofquist has shown. This difficulty has not yet been overcome in spite of many attempts with special straining. Hitschmann and Adler, however, believe to have discovered a certain and reliable diagnostic sign of inflammation in the occurrence of plasma cells. There is no unanimity regarding the significance of these cells, but it is known that they accompany pathological conditions as one of the forms of infiltration cells. These authors are of the opinion that these cells may be used as a diagnostic sign of inflammation, and they have determined their usual constancy in gonorrhœal inflammation. With reference to stromal changes it has heretofore been taught that the transition to a chronic state is characterized by the appearance of spindle cells in place of the round celled infiltration. Hitschmann and Adler believe that the matter may not be stated so precisely, since they found connective tissue new formations with and without round cells. The most that can be said is that when inflammation has ceased, spindle cells remain and cannot be used to diagnose chronic endometritis. Neither can their presence be used to indicate former endometritis in the senile uterus.

In addition it has been found in studying the histological changes of menstruation that the stromal condition in the superficial part of the endometrium is not constant. The spindle cells with oblong nuclei of the interval stage become round and oblong cells with increased protoplasm during menstruation. In the premenstrual stage the spindle cells swell, the nucleus becomes rounded, and enlarged, stain less perfectly and is paler. The protoplasm is increased and stains less darkly. The cells have less distinct limits, may be separated by a serous transudate and resemble decidual cells. This condition is best developed just before menstruation. It may be said in brief, that much of what was regarded as diagnostic of chronic interstitial endometritis, consists really in physiological changes of the premenstrual period. Accepting this as correct, there at once disappear the peculiarities of inflammation when it affects the endometrium as formerly accepted, and those changes

recognized as distinguishing inflammation elsewhere also holds good concerning the endometrium.

The results of Hitschmann and Adler's work are therefore that endometritis glandularis hypertrophica and hyperplastica have nothing to do with inflammation. The former represents premenstrual conditions and nothing pathological. The hyperplastica represents partly premenstrual changes, and partly glandular changes within physiological limits. There is, however a glandular hyperplasia of the mucous membrane independent of inflammation. There is only one form of inflammation of the mucous membrane, and this inflammation causes changes in the endometrium and in the stroma.

Much attention has been directed to the significance of the plasma cells by the suggestion that they may be used as a reliable index for the presence of endometritis. Although the plasma cells have been much studied in the pathological histology of other organs, not much attention has been given them in gynecological diseases. Weishaupt has made an extended study of these cells and given his results in a comprehensive article (*Zeitschr. f. Gb. u. Gyn.*, Vol. 62, 52), both as to their occurrence in gynecological diseases and in those of other organs than the uterus. His conclusions are that we are not warranted in making the diagnosis of endometritis solely from the presence of plasma cells, since on the one hand the injuries of epithelial tissues would remain without consideration, and on the other hand serious changes of the stroma are met with where no plasma cells are present. Schwan (*Zentralbl. f. Gyn.* 1907, No. 29), also has found that they are not present in every case of inflammation, and if present soon disappear after the occurrence of inflammation.

Theilhaber and Meier (*Arch. f. Gyn.*, Vol. 86, Heft 3), who have long been interested in this whole subject, have given some results which advance a step further inasmuch as they have examined this new theory from its clinical side. Of 74 cases examined they found glandular hyperplasia in 62 per cent. of all cases; and among clinically normal cases, without hemorrhage or discharge, glandular hyperplasia in 61 per cent.; so that there appears to be no causal relation between hemorrhage and discharge and glandular hyperplasia. Evidences have already appeared which seem to sustain the belief that menorrhagia is not induced by catarrhal inflammation of the mucosa; also in many cases of discharge an inflammation

of the mucous membrane was not found. In gonorrhœal infection there is surely an inflammation of the mucosa. There ought therefore regularly to be present a hyperplasia of the glands, if inflammations really occasion a proliferation of glands. Such a condition was only encountered in 62 per cent. of genuine gonorrhœal cases, a percentage not greater than in clinically normal cases; hence a casual relation between gonorrhœa and hyperplasia could not be established. The next point they examined was whether hyperplasia was regularly occasioned by premenstrual congestion, and found that it did exist in 84 per cent. of all premenstrual mucous membrane examined, in 42 per cent. of the postmenstrual, and in 60 per cent. of the intermenstrual and in 66 per cent. of menstruating cases. While therefore gland hyperplasia predominates in the premenstrual stage, and probably also this time contributes to its occurrence, yet it seems more warrantable to believe that this occurrence is rather peculiar to the individual, and that the actual number of glands present is quite variable in different individuals. This is true in all cases examined. In the clinically normal cases gland hyperplasia was found 90 per cent. premenstrual; 50 per cent. postmenstrual; 56 per cent. intermenstrual; and the conclusion is that in the presence of hemorrhage and leucorrhœa the glandular hyperplasia is not more frequent than in their absence. The number of glands varies greatly in young children, and from this also they see a confirmation that the variation is due to individual peculiarities. Great variations are also found in different pieces of mucous membrane from the same uterus lying not far from each other.

Their study of glandular hypertrophy has shown this to be present in 52 per cent. of all cases. In the clinically normal cases it existed in 62 per cent., and they were not able to find that in the presence of hemorrhage and leucorrhœa the hypertrophy was more frequent than in the clinically normal cases. Leaving out the percentages they found hypertrophy to predominate during the premenstrual period as compared with the post- and intermenstrual periods, but it occurs rather frequently in the latter periods. A pronounced difference between the clinically normal cases and cases having hemorrhage and leucorrhœa does not exist, and they by no means show a greater frequency of occurrence of gland hypertrophy. It may be said in general that the spiral forms are also frequently found in other than the premenstrual time. They are often seen in as-

sociation with small glandular cells, having scanty protoplasm, and are believed to be due to physiological variations, and not necessarily occasioned by premenstrual congestion. On the other hand the papillary form (Opitz's glands) is mostly seen to contain large cells, having much protoplasm with large nuclei. This gland form is frequently present in the premenstrual period, and its development is quite likely favored by the premenstrual congestion. Gonorrhœal infection seems to have no effect upon the production of glandular hypertrophy.

Enlargement of cells and nuclei were found in 35 per cent. of all cases examined, and in the premenstrual time in 60 per cent. of the cases, and in 100 per cent. of all clinically normal cases during the premenstrual congestion. It seems, therefore, that this time has a great influence upon the enlargement of the cells and nuclei. It also appears that in clinically normal cases this enlargement is not more seldom than in the cases of hemorrhage and leucorrhœa. Wide gland lumen was found in all cases with leucorrhœa in the premenstrual time, in 33 per cent. in the postmenstrual, and in 17 per cent. in the intermenstrual periods. In clinically normal cases the figures were 90 per cent., 18 per cent., and 15 per cent. From this the authors conclude that the premenstrual stage favors the enlargement of the gland lumen.

Round cell infiltration was found in 44 per cent. of all cases. It was abundant in gonorrhœal infection, 7 out of 8 cases. The menstrual phase could not be demonstrated to have an influence. The same is true of the number of polynuclear cells, which were mostly found in association with round cells, especially in gonorrhœal infection, but also in cases having recently had a miscarriage.

From the foregoing clinical considerations it will be seen that the first great impulse given by Hitschmann and Adler to the reconstruction of our conception of endometritis does not at once close the question. The facts presented have been widely verified and may be accepted. It remains now, however, to co-ordinate clinical experience with microscopic findings as they must now be interpreted. Albrecht's article (*Mónats. f. G. u. G.*, Vol. 32, heft 6, 739) may be regarded as a contribution to this requirement. He says the anatomical diagnosis of chronic endometritis rests upon the demonstration of characteristic changes of the stroma and vessels: abnormal, diffuse or circumscribed collections of leucocytes, exudation, irregular

hypertrophy and atrophy of the stroma, vessel proliferation besides the vessel changes characteristic of chronic inflammation and inflammatory infiltration of the muscle interstices.

He further says there are in the uterine mucous membrane pathologic stationary hyperplasias aside from those of the normal premenstrual hyperplasia, namely after the menopause, in the post-menstrual and interval stages, after long continued placental retention, and after long continued hemorrhage. . . . Through the chronically recurring inflammation the regular picture of the cyclic menstruation phases in the mucous membrane become disturbed and obliterated. . . . Chronic recurrent inflammation occasions in the mucous membrane the picture of proliferating inflammation. The most decisive proof for inflammatory hyperplasia is the deeply placed proliferations. He believes we are justified in speaking of hyperplastic or proliferating endometritis, but it is to be differentiated from pathological stationary hyperplasia of the mucosa when there is no inflammation present as a cause, and congenital abnormalities and chronic hyperæmic conditions and ovarian influences must be assumed as causes.

RECONSTRUCTIVE PELVIC SURGERY.

N. F. LANE, M. D., PHILADELPHIA.

FOR some years I have been interested in this subject and I would like to ascertain the opinions of the members of this society, through the discussion of this paper, as to the value of this form of surgery, and if found to be of value, to encourage the family doctor to try this method of cure in the class of cases which we will discuss.

The pathology of the cases to which I wish to call your attention is not that caused by an inflammatory process, but rather those where there is, perhaps, a lacerated perineum, a prolapse of the uterus with retroversion and as a consequence a falling of the ovaries and tubes into the cul-de-sac. We may or may not have all of these conditions present, but they usually are in a more or less aggravated degree. A chronic appendicitis is not an infrequent attendant upon these displacements although possibly, bearing no relation to them as a causative factor.

This combination of pathology is most frequently met in the multipara, but it is not infrequent in the nulipara (barring the lacerations) and in the latter patients it is usually a congenital condition, or at least has existed from puberty.

When these patients present themselves to the doctor they are prescribed for with more or less (usually less) temporary relief; next they are examined and local treatments of tampons, pessaries, et cetera tried with a little more success; but finally most of them drift from one physician to another seeking relief from a condition which seems too simple to account for their failing health; in fact their suffering seems to be out of all proportion to the physical lesions found and the doctor is likely to consider them "neurasthenics," concluding that they cannot be helped by local measures.

Now these patients may be, and probably are "neurasthenics," but they are so from some cause and it is no more to the credit of the doctor to consign them to the waste basket of the incurables than it is to so treat a hysterical patient. Hysteria is, I know annoying, so are these cases which we are considering; but that is no reason for not trying to get at the cause of the "neurasthenia," or other nervous trouble.

When we stop to consider that these patients are usually married and consequently have the usual duties to perform that marriage entails, I think we will all agree that a low lying uterus with enlarged, prolapsed and abnormally sensitive ovaries, combined with a husband who may not be considerate of an invalid wife, is enough to make the otherwise healthy woman "neurasthenic."

The suffering attributed to a retroversion is not usually caused by the retroversion of itself; but by the prolapse of the ovaries which necessarily accompanies a retroversion and the real remedy is to raise and maintain them in their normal situation out of the way of the various traumatismes to which their prolapsed position subjects them.

These patients usually give a history of fairly good health until after the birth of the first baby. Then their sufferings begin and as time goes on they become worse until they are in more or less constant pain. In addition to the usual symptoms of headache, backache, bearing down and pain in the ovarian regions, the prolapsed, tender ovaries cause so much pain during coition that the act is anticipated with fear and sometimes loathing and they are incapacitated for their usual

duties for hours afterward. Is it any wonder that such a condition of things will make "neurasthenics"?

The real remedy for this condition is to restore the pelvic organs to their normal relation thus relieving the patient of this awful nightmare that is constantly hanging over her and which is blasting the pleasure of the home in many and various ways. We can no more expect a woman to be agreeable about the house under these circumstances than we can expect a man to be sweet tempered in the presence of an indigestion.

The first step toward a cure is to repair any lacerations that may be present, thus restoring the function of the pelvic floor. I do not advocate any particular operation as each case should be treated according to the conditions present; but the *function* must be restored, which is an entirely different matter from "sewing up a perineum" (as it is sometimes spoken of) and unfortunately that is sometimes all that is accomplished by the operation. Thus far most operators will agree; but from this point there is a divergence of opinion regarding the best method of treating the prolapsed ovaries and retroverted uterus. As stated before the ovaries are giving the most trouble and whatever method is adopted it should be one which takes them into serious consideration.

If the ovaries are large and cystic and are not so diseased as to require their removal, I am in the habit of resecting them, removing the cysts thoroughly, and bringing the edges together very carefully with a *round fine* needle and a very *fine* gut suture. I believe it is important to do this work as indicated as I am quite sure that the use of large needles and heavy suture material combined with numerous punctures and needless stitching has a tendency to irritate the ovary and cause the subsequent formation of cysts.

After the ovaries have received attention the best method to deal with the displacement of the uterus and ovaries must be determined upon and here again we meet a diversity of opinion, each operator being influenced by his personal experience. It will be some form of suspension, and after some considerable experience in following these cases after the usual forms of operation I have, for the past eighteen months, been depending upon the method known as the Baldy or Webster-Baldy operation for suspension of the uterus and ovaries, and as far as I know it is the only operation that does suspend the ovaries, especially where the ovarian ligaments are relaxed, with-

out an additional shortening of these ligaments. Of course in very exceptional instances it may be necessary to shorten the ovarian ligaments even with this operation. I have found it necessary but once.

Many of our ideas in regard to a given operation are theoretical and must be demonstrated to be true in actual practice before we can with reason come to a conclusion as to their value. Possibly the eighteen months during which time I have been doing the Baldy operation is not a sufficiently long time to demonstrate its usefulness, but I have followed a large number of patients operated upon and without exception the results as far as the suspension of the uterus and ovaries are concerned, have been all that can be desired. I have not yet found one relapse which I consider a rather remarkable showing. I think that in one of the cases, a stitch pulled out or absorbed too soon, as the uterus was pulled somewhat to one side of the pelvis but it did not revert to its previous state of retroversion. This is now overcome, I think, by using one stitch of linen as a permanent anchor. The result in this particular case may have been my fault in not suspending the uterus evenly at the time of operation, but as it was normal when the patient was discharged from the hospital, I naturally consider it to be the fault of the suture material. Dr. Baldy uses silk throughout the operation and it is sometimes well to follow the lead of one who has had success and not theorize too much upon what we personally may think should be a better way of doing things.

This operation was conceived, in all probability, by two men working along the same lines at the same time, unknown to each other, and it has resulted in some little friction and controversy as to which of them is entitled to the credit of first doing the operation. This, however, does not enter into our consideration of the subject and we will proceed to a description of the technique of the operation which has appeared many times in print and may be familiar to all of you.

The abdomen is opened in the usual way, the tubes and ovaries being free and any work having been done upon the ovaries that may be necessary. The uterus is then grasped with the fingers of one hand and pulled forward while with the other hand a rather long, preferably curved hæmostatic forcep is pushed through the broad ligament from its posterior surface, beneath the ovarian ligament, grasps the round ligament at a point that seems to be suitable to take up the slack,

drawing the round ligament through the broad ligament and uniting it to the posterior surface of the uterus and to its fellow of the opposite side which is treated in like manner.

This suspends the uterus in a sort of hammock constructed of the round ligaments and their peritoneal covering, and while this operation utilizes the weak end of the round ligament, still it seems to accomplish the work expected and to my way of thinking is the best operation yet devised to cure these cases especially where the ovarian ligaments are very much relaxed. It also leaves the patient without false bands in the abdomen which seems to me very desirable. It leaves the uterus in a condition favorable to the completion of pregnancy and normal delivery; in other words the anatomy of the patient is practically normal.

By way of illustration I will cite a few cases, selecting those which were not badly complicated with other pathological lesions.

We may, perhaps with advantage, divide these patients into two classes of cases, those who have not borne children and those who have. The first class may be considered as representing a chronic condition and therefore less amenable to treatment than the second class who may be considered as representing an acute condition and therefore will accommodate themselves to the new relation of the various organs more readily.

Case 1. Mrs. L——; patient of Dr. H——; age about 35; one child six years old. She has been ill ever since the birth of the baby and has been getting worse lately. She is suffering from all the usual symptoms that accompany this condition, such as bearing down, pain in both ovarian regions and hypogastrium and says that the uterus sometimes protrudes from the vulva. Coition is painful and is followed by the usual train of nervous symptoms that go with this unfortunate condition. Physical examination reveals a prolapsed and partially retroverted uterus, a prolapse of the ovaries, a laceration of the cervix and perineum, and a polypus protruding from the cervical canal. The uterus is prevented from going into complete retroversion by the scar of the cervical laceration which extends into the base of the broad ligament and down the vagina for some distance.

At the operation the uterus was curetted and several small polypi were removed from the cervical canal and the lower seg-

ment of the uterus, the cervix was repaired, care being taken to remove all the scar tissue possible, the perineum was repaired, the appendix removed and the uterus and ovaries suspended by the Baldy method.

The patient made an uneventful recovery with all her organs in a normal position when she left the hospital. She was slow in regaining her strength and is one of the patients who will be some time getting entirely well. Examination six months after operation shows pelvis normal.

Case II. Mrs. R——; patient of Dr. H——; age 27. She is referred to me on account of bleeding following a miscarriage one month ago. She has suffered much the same as "Case I" ever since the birth of her first baby. She has a lacerated cervix and perineum, a retroverted, enlarged, soft uterus and prolapse of both ovaries.

Operation: The uterus was curetted and some shreds removed, the cervix and perineum repaired and the uterus and ovaries suspended by means of the Baldy operation. The pelvic organs were normal when she was discharged from the hospital.

Examination nine months after operation finds the organs in normal position.

Case III. Mrs. H——; patient of Dr. H——; age 43. She has been suffering for many years and gradually getting worse so that she has been compelled to give up her occupation of housework. She has pains in the back, both ovarian regions and bearing down.

Examination: The cervix and perineum are lacerated, the cervix contains a polypus the size of a thumb, the uterus is retroverted and the right ovary cystic. Both ovaries are prolapsed.

Operation: The uterus was curetted, the cervix repaired, the polypus removed, the perineum repaired, the right ovary resected, the appendix removed and the uterus and ovaries suspended by the Baldy operation.

Six months after the operation her doctor reports that she resumed her work three months after leaving the hospital and remains in good health.

Case IV. Mrs. T——; my own patient; age 21; one child one year old. Suffers with backache, pain in both ovarian regions and bearing down. Coition so painful and exhausting

that she is sometimes compelled to lie in bed a part of the next day. She is a physical wreck.

Examination: Cervix and perineum normal, uterus retroverted and both ovaries are prolapsed, cystic and exceedingly tender. She has a history of attacks of pain in the right iliac fossa and the appendix is tender.

Operation: The ovaries were resected and although the ovarian ligaments were quite long the Baldy operation suspended them nicely. The appendix was much inflamed and was removed.

Examination three months after operation found the organs in their normal position and the patient free from symptoms unless she overworked. This young woman (only 21 years of age) was practically an invalid, unable to attend to her household duties. This was an aggravated case and I have been anxious to examine her one year after operation, but cannot locate her.

Case V. Mrs. B——; patient of Dr. B——; age 30. Has been married four years and has had four children and no miscarriages. Her illness dates from the birth of the last baby one year ago. She states that six months after the birth of this baby she had a pus tube on the right side since which time she has been getting worse, is losing flesh and her general health is failing. Intercourse is exceedingly painful. Since the first examination her husband was away on a business trip and she became so much better that she postponed her operation thinking she was getting well, but unfortunately, if not unexpectedly, after his return home she was soon as bad as ever.

Examination: The perineum and cervix are lacerated, the uterus is retroverted and adherent, the ovaries are prolapsed, and act freely movable and very tender.

Operation: The uterus was curetted, the cervix and perineum were repaired, the uterus and tubes were freed from adhesions (the tubes being patulous after the adhesions were broken up) the left ovary was resected, the uterus and ovaries suspended by the Baldy operation and the appendix was removed.

This case differs somewhat from the preceding ones in that it was complicated by an old inflammatory process, fortunately of a mild character. Following the operation she felt immediate relief from her symptoms and expressed herself as feeling like a young girl again. She spent two months living a quiet

and restful life after which she was compelled to do most of her housework without competent help. Two weeks ago I examined her and she was in perfect condition and feeling well.

The report will end with two cases of nulipara.

Case I. Miss H——; patient of Dr. E——; age 33. She suffers from backache, pain in both ovarian regions, worse upon the right side, has indigestion and dysmenorrhea; all symptoms being worse the last year, although she has suffered for years.

Examination: The ovaries are cystic and somewhat prolapsed and tender, the appendix is tender, the uterus is in normal position and the cervix is acutely flexed.

Operation: Cervix was *thoroughly* dilated, the left ovary was removed, the right ovary was resected, the appendix was inflamed, adherent and bent at an acute angle and was removed.

Her doctor reports that she has been very well since the operation. Her indigestion was due, no doubt, to the appendicitis.

Case II. Mrs. D——; patient of Dr. H——; age 25. She has been suffering from dysmenorrhœa for some years, has pain in both ovarian regions, is constipated and has night sweats. Coition is painful.

Examination: The uterus is retroverted, the ovaries prolapsed, and there is a small fibroid on the fundus.

Operation: The uterus was curetted, the fibroid was removed and the uterus was suspended by the Baldy method. She was discharged well with her pelvic organs in a normal condition.

One year later she reported that she had been well until about two weeks before she presented herself the second time. She now has pain in the right pelvis, and a profuse purulent leucorrhœa and a urethritis.

Examination: There is a discharge from the urethra and vagina, there is a fluctuating mass in the right pelvis, otherwise the organs are normal. I was very anxious to see the result of my former operation, but unfortunately for me, but fortunately for her, the process subsided and she apparently recovered with almost complete disappearance of the mass.

In conclusion I wish to make a plea for these women who are chronic or semi-chronic invalids from the causes we have been considering and to ask any who may have such patients to

treat, to offer them the advantage of surgery, if after a reasonable trial they are not cured by other means.

DISCUSSION.

DR. E. P. CLARK: I wish to commend Dr. Lane for his essay and also for the fact that he is bringing the Baldy operation before the Society. I have performed it a dozen or more times with perfect success. I have been interested particularly to find out what happens during or following pregnancy after the Baldy suspension. Dr. Baldy gave a report of thirty cases that had been pregnant following the operation without a relapse. The operation, it seems to me, is to be recommended because of the manner of suspension, the uterus having all of its natural movement which it does not have when it is suspended to the anterior wall, and because following the Baldy suspension there is not the tenderness through the abdomen which we do get when the ligaments are attached through the muscles or the uterus is suspended through the parietal peritoneum. I have had a number of cases that have been absolutely miserable because of the sensitiveness produced by anterior suspension, and their discomfort was not relieved until the uterus had been put back to its former position.

BUREAU OF SANITARY SCIENCE

G. J. BERLINGHOF, M. D., Chairman

THE MODERN CONCEPTION OF PREVENTIVE MEDICINE.

G. J. BERLINGHOF, M. D., SCRANTON.

EXPERIENCE has demonstrated that both the improvement of man's physical welfare, and his advancement in medical knowledge are dependent upon an intelligent understanding of his living conditions. Nature has enjoined upon every living creature the preservation of its species. The preservation of the human species is a subject of the greatest importance and to which we cannot give too much attention.

The bounden duty of every government is to guard the health of its subjects, for when many are afflicted with disease,

the health and happiness of the whole are affected, and there can be no satisfactory progress in any line of human endeavor. Necessarily the enforcement of rules and regulations safeguarding the health of the people must be entrusted to a few individuals, selected by reason of their fitness and experience, and to whom must be delegated the proper jurisdiction and authority. The State Public Health Board was created to safeguard the public health. Its principal duty is to combat preventive diseases, and to teach the people how this may be accomplished.

From the beginning of history, man has been attacked by unknown foes in the form of diseases not understood, and thousands have succumbed to such diseases through lack of knowledge of their proper treatment. Some of these diseases have caused such widespread havoc as to assume the proportions of plagues, depopulating nations, and necessitating the old shot-gun quarantine, whereas to-day they are successfully handled, because we have ascertained their origin and causes. We now know that most of them are due to germs and micro-organisms.

It is not possible for an individual to protect himself from disease, if those about him carelessly disseminate the germs of disease. Unless there exists in some body authority over all the people, the guarding of the public health cannot be properly secured, and public health officers are absolutely necessary if sanitary measures are to be enforced.

When public health laws and public health officers are disregarded and discredited, there will always be found some persons who will maintain nuisances that are bacteriological incubators for all kinds of disease germs. Spreading ills will occur and the death rate will increase. But when public health officers are encouraged and assisted in their work, and these pernicious nuisances abated, the death rate will diminish. Few epidemics will occur, and such as do, can be successfully controlled. The result is not only a great saving to the individual in doctor's bills, undertaker's bills, and the other expenses incident to illness, but the community is saved from loss in maintaining its various commercial enterprises.

In the light of these facts, probably no subject in recent years has produced so much change in the current of medical thought as the principles underlying preventive and constructive medicine. Factors, which heretofore were considered of

little value, are now recognized as of great importance. One of the basic principles, is the necessary consideration of many problems from a community standpoint not ignoring the individual by any means, but rather by securing the co-operation of every individual so that the whole may be treated as a unit. With the united efforts on the part of all, the full efficiency of preventive medicine can be realized.

If medical men are to be leaders in creating a marked line of action in the great world movements, striving toward the decrease of illness, the prolongation of life, and the increase of health and happiness, they must consider these problems from a broad, general standpoint.

It is to be regretted that so many medical men at the present time are not even interested in these great movements. We are so much engaged with our own affairs that we have no time to pause and observe the great health saving campaigns that have been inaugurated in our very midst, and which have such a close relation to our profession. Yet our own calling, from a purely commercial standpoint, is so closely connected with the welfare of the community, that the betterment of the general welfare can not but prove of financial gain to ourselves. While it is true, that monetary considerations are often the prime incentive of man's efforts in competition with others, and his desire to excel in his chosen profession, yet at the same time, it must be borne in mind that little can be accomplished in any enterprise without the wherewithal to provide the necessary materials and agencies.

I had intended at first not to refer to the question of remuneration, but I believe I can safely say that no student ever entered a medical college with the expectation or intention of becoming what has been termed a medical grafter, although he adopted the profession as a means of livelihood, and realized that he could not accomplish the greatest good unless his work received the proper remuneration. One of the great difficulties encountered in this work is that few are willing to sacrifice their time and money, although I am confident many more would lend their aid if the importance of the work were fully explained to them. Yet, we in the medical profession, cannot all afford to work without compensation, and it would be unreasonable to expect it. Nevertheless, we can be thankful that there are many men of means who are willing to devote much of their wealth to educational advancement and scientific re-

search. Notwithstanding this, the people as a whole should be taught the value of scientific research, and shown what it has accomplished, in order to obtain greater aid in sustaining the progress of the work.

Permit me to express the opinion that the success of any efforts along the line of preventive medicine depends largely upon the extent to which the people have been educated to an understanding of the importance of the work, including the causes which produce disease. It is urgent, therefore, that the individual should be reached, and for this purpose, we have no better means at our disposal than the columns of the press, one of the greatest educational agencies that exists to-day. We realize and appreciate the influence which the press has upon the public, and the great good it can accomplish, particularly when their publications are properly conducted. Fortunately, also, most publications are controlled by men of brains, ability and good moral character, who will not permit their columns to be used for perverted purposes. Many publications reserve space for health department news, often gratuitously, and also invite articles from recognized authorities on sanitary science. These articles invariably appeal to the intelligent reader, to whom we must look largely for help and support. Through the interest aroused in these articles, prominent and influential laymen often become workers in the cause of science, while the publications themselves profit by increased circulation.

In addition to reaching the people through the medium of the press, we have the benefit of public school inspection by authorized physicians, and this is now becoming compulsory in many States. In some localities, separate inspection is provided for each school, while in other places the inspection is by districts. This inspection often enables part of a district, or part of a school, to maintain its instruction, by taking proper precautions, when a communicable disease breaks out, whereas formerly it became necessary to close the whole school, or all the schools in a district. The loss in closing the schools may therefore often be much greater than the expense of employing an inspector, so that the services of the inspector result in a saving to the community.

With your permission, I will cite a case of scarlatina that came under my personal observation, developed while at school, and not recognized until the eruption appeared. Had a medical examiner been employed, and summoned at the first indication

of illness, or better still, required to make daily visits, he would have detected the case in the early stages of the disease and the danger of infecting the whole school would have been removed. Does it seem right to permit our school children to run such risks?

To give you the particulars, I will state that I discovered a child with tuberculosis, attending school, two children of the same family having previously died of this disease. The attention of the Health Superintendent was called to the fact, but the reply was made that the State had made no special provision for this protection, and the child continued at school until death removed it. Fumigation of the house was requested of the department, but met with the same answer, although I am pleased to state that, now in our city, all rooms that have been occupied by a tubercular subject are fumigated as soon as reported by the physician. The city pathological laboratory is at our disposal, and there is no good reason for not reporting all suspected cases.

Many business concerns and corporations, engaged both in manufacturing and other lines, including department stores and insurance companies, are now not only complying with public sanitation laws, but go even further in the work on their own responsibility, because they realize that it means greater efficiency on the part of their employes, and greater profits in their business. To give you evidence of how much some companies are concerned in these matters, allow me to cite an instance occurring in our city. In one of our factories, a workman, with diphtheria, had exposed his fellow employes to the contagion. The company immediately summoned a physician, who administered immunizing doses of anti-toxin to the other employes, with the result that not one of them contracted the disease. The company has learned from past experience the value of prophylaxis, so that the care which they are taking of their employes has not only gained them the confidence and esteem of the public, but also the good will and support of their employes. By complying with hygienic laws, they have, therefore, benefited themselves in numerous ways.

Reference must be made to what has been accomplished by modern sanitary toilet arrangements, which are now easily accessible and conveniently located within doors, in place of the old style closet of past years, out of doors, and at some distance from the dwelling or factory. The new arrangements do away

with the unpleasant effluvia of the old style closets, besides affording the greatest convenience for attention and inspection.

Much has also been accomplished by the banishing of the common drinking cup in railroad stations, cars, hotels, and other public resorts, as well as the use of individual towels and other toilet articles.

Expert medical men are now employed by many companies to inspect the sanitary surroundings of their buildings and other properties, make physical examinations of applicants for employment, instruct employes to observe and report any unsanitary conditions affecting their work, such as sewage, garbage, or any uncleanness about the premises, look after the water and food supply, the lighting and plumbing, air pollutions, and transmissible diseases. It is also in their line of duty to impress upon employes the evil influence of intemperance, the obligations of a father to his family, and the importance of conducting his life according to certain principles, which are the results of logical deductions, and which mean not only so much to himself but to those dear to him and all with whom he is associated.

If a knowledge of these principles can only be instilled into the minds of the masses, the cause of preventive medicine will be greatly advanced.

Trained nurses are a valuable help to public health work. Although the profession was established in recent years, largely as an experiment, it has proved a great success and the trained nurse is now a necessity. Their field of usefulness has enlarged to such an extent that they are now employed by insurance companies, department stores and other mercantile establishments, benevolent and charitable associations in district work, and in many other lines of industry. Their sphere of usefulness has been found in attending and instructing mothers in the care and feeding of babies, thus greatly reducing infant mortality.

To realize a proper conception of preventive medicine by the public requires a systematic and thorough campaign of education, inculcating in them a proper understanding and observance of the fundamental laws of hygiene.

In looking over the field, we find many defective features, associated with this great movement, which it is within the power of the medical profession to correct. It has been maintained that medicine concerns itself with pathological conditions, and that, therefore, the physician should devote his time

to this field alone, leaving the balance of the work to others, but who is to determine the dividing line between the normal and abnormal, the physical and the pathological? It is, therefore, important that to meet the various conditions which arise, the physician should acquire some knowledge of sanitary engineering, and the legislation affecting same, as well as a general knowledge of affairs pertaining to our social and industrial problems.

DISCUSSION.

DR. PURSELL: The chief thought of the medical mind to-day and the one which must necessarily occupy the mind of the foremost members of the profession is that of preventive medicine. This is the ultimate aim of research in medicine. Can it be possible that disease is due to a common cause? I believe that such is largely the case. Degeneration of the arterial system is largely the result of absorption of toxic products from the alimentary tract. Admitting that this is the case, we will enter into a discussion of the means of prevention of disease. First of all, I would say that breeders of animals have recognized the fact that the bringing together of like defects in the parent stock emphasizes those defects in the offspring. It is time that we, as human beings, should give this subject serious and scientific consideration, and that those who anticipate entering into the marital relation should take these facts into consideration. We should be educated along the line of dietetics, for I believe that the mass of toxic material and of earthy salts that is deposited in the arteries likewise produce irritation of the kidney and of the liver. On account of the fact that arterial sclerosis impairs the nutrition of the brain I believe that mental diseases are often caused by it. A consideration of the process of digestion shows that it begins in the mouth. The water in the saliva moistens the food and the ptyalin has a specific action on the starch and sugar. Thorough mastication, therefore, is an important matter. If this is not properly carried out, the food cannot be properly mixed with the gastric juice in the stomach, and we have irritation of the lining of the stomach and delayed digestion. After the food passes from the stomach into the intestines fermentation may take place with the development of gas and other toxic products which are absorbed and a vast amount of poisons taken into the circulation. If food is taken in excess we are burdening the glandular system of our body; the lymphatic circulation is over-loaded and the arterial tension is raised. Not infrequently also this toxic matter produces interference with the

circulation in the brain and nervous system, and nervous and mental disorders result. How shall we prevent these conditions? By teaching the laity how to eat, what to eat, when to eat, and how much to eat. A great deal has been said of the gluttony of the American people. We should not, however, go too far for there are many who are poorly nourished and starving to death.

FOOD ADULTERATION.

EDWARD M. GRAMM, M. D., PHILADELPHIA.

THE subject of the adulteration of foods attracts little attention in the various classes of the community; yet there is nothing so vital to the welfare of the average individual as the nourishment that he habitually takes. From time to time a transient interest is manifested; but it usually is provoked by deaths occurring from some foods or drinks that have been "doped" to too great an extent owing to the cupidity of the manufacturers of them. The interest soon wanes and a low price overbalances the purity of an article.

That adulteration is wrong most people will concede for argument's sake; but the next visit to the grocer or butcher or confectioner finds them purchasing what is tempting in appearance or taste or packing. That it is wrong from the standpoint of health should be preached over and over again by an awakened medical profession. Yet we find few medical men taking an active part in investigating the character of the adulterants used in the common articles of diet or warning their patients against letting price or appearance be the criterion to guide them. Few foreign substances are mixed with a certain article for the purpose of improving it; the object invariably is to increase the profits of the maker by increasing the bulk, improving the taste or color, or preserving that article in a cheap and permanent manner.

The Century Dictionary defines adulteration to be—"The state of being adulterated or debased by admixture with something else, generally of inferior quality, or use, in the production of any professedly genuine article of ingredients which are cheaper and of an inferior quality, or which are considered not so desirable by the consumer as other or genuine ingredients

for which they are substituted." This definition practically covers the whole ground and contains all of the elements of the arguments which can be advanced against the practice of the adulteration of foods.

In the first place the admixture of something else with the article desired by the consumer constitutes a fraud on the part of the manufacturer.

In the second place the search for that something else means hunting for something that has nearly the physical qualities of the genuine article but which is cheaper by reason of having greater bulk or being able to be manufactured at a less cost; or there would be no reason for adding it.

In the third place it is rarely the case that the cheaper or bulkier article will present the same color as the genuine article, hence the necessity of hunting a coloring matter to make the deception perfect; and it is a notorious fact that artificial coloring matters rarely possess inert or harmless qualities.

In the fourth place the desire, that is almost universal, to have on the table the various articles of food out of season compels the manufacturer to devise a way of preserving them for indefinite periods. Here the greatest danger lies, for chemical substances will preserve foods so that they will not look wrong nor taste wrong when they reach the consumer. Preservation of foods for a moderate time has been practiced by the housewife from time immemorial; but canned and preserved foods are now manufactured in such enormous quantities by the large manufacturers that many of them are in the hands of the jobbers and retailers for periods that are amazing when the truth about how long they have been kept comes out. The effect upon the digestion or the health of the ultimate consumer rarely enters into the calculation of those manufacturers who place large profit above the welfare of their fellow men.

As medical men we can all subscribe to the statement that the taking into the system of a chemical preservative is bound to produce symptoms; also, that the habitual use of chemical preservatives is bound to produce organic changes, be the time that is required to do that long or short. It is here that skilled physicians should step in and educate their patients. Many sophistries have been advanced to prove that the small quantity of a chemical necessary to preserve a food cannot injure a human being and it is unfortunate that partisans can readily be found who will support the contentions of the manufacturers

based on those sophistries. The amount of capital invested in the production of manufactured articles of food is so enormous that the argument is advanced that the value of the plants making those foods should not be deteriorated by agitation looking toward the welfare of humanity.

It is a fact from which there is no escape that there is hardly an article that is used for food which has to undergo any process of manufacture that is not adulterated in some way. Trade secrets are hard to elicit; but, day after day, a little information leaks out which shows that cheapness and the ability to have a food keep long outweigh absolute purity in the finished product. We should stand shoulder to shoulder to have what is placed on the table for consumption exactly what it is represented to be. Manufacturers who fulfill this requirement should be supported and their goods recommended when we make out diet lists for our patients. While it is a fact that the healthy organism will stand a remarkable amount of abuse and for a long time will resist the injurious effects of drugs and chemicals that are used habitually, yet the time comes to almost every one when the resisting powers are not up to the normal standard and then an apparently sudden giving way occurs, with the consequent surprise of the victim and doctor. Can we estimate just how much ill health is produced by the inhibition of the digestion that is brought about by certain substances that are now used by manufacturers or can we imagine the ill effects on an organism already weakened by disease? How soon will the laity and the physicians awake to the necessity of taking pure foods into the stomach? How soon will physicians awake to the necessity of knowing that the diet list of a patient, sick or convalescent, contains nothing that will retard recovery?

The crying need of curbing the cupidity of unscrupulous manufacturers has resulted in the passage of a national pure food law; but it was passed against almost insuperable obstacles erected by just those people; and, now that it is on the statute books of the country, what obstacles are being interposed to its enforcement? A perusal of the newspapers gives a partial answer to that question; but are all of them known? Are all the devious practices a matter of common knowledge? It is our duty as conservators of the health of the public to inform ourselves on this subject as well as on the subject of what are pure foods and what are injurious ones. This information cannot

be obtained in a day. Constant watchfulness and a study of the ill effects of the various adulterants and preservatives are the duty of every physician. Recollect that such knowledge is not only useful in dealing with patients. Our own households are as liable to present cases of injury as those of our patients. Those of us who have the helpless sufferers in hospitals and institutions under our care—people who are in them because they think that there the best of care and the acme of knowledge are theirs—should possess information as to what is being given to those sufferers in order to restore them to health and usefulness. In a recent issue of the *American Journal of Surgery* this thought is driven home forcibly in this manner: "The lowest bidder is the worst enemy of the hospital or institution for the care of the sick, the poor and the criminal. The largest quantity for the least money has been regarded as economy. Quality is as important as quantity. The poorest milk that is to be found in the city of New York is to be found at the milk supply of hospitals and asylums—at the very places from which there daily go forth men loudly advocating clean milk supplies for municipalities." And again—"With an annual expenditure of \$16,000,000 for raw food-stuffs, the hospitals should be duly interested in the problem of securing a thoroughly healthful supply of foods for the patients in the private pavilions and the public wards. What proportion of the canned goods, costing \$420,000 per annum, contains the admixture of materials other than those ordered by the purchasing agent? What is the nature of the preservative employed in their production? Are they in any way harmful to the sick? How long have the \$240,000 worth of eggs been in cold storage?"

Any discussion of the subject of pure food would be incomplete without giving the greatest possible credit to Dr. Harvey W. Wiley, through whose efforts the present national pure food law was fostered and who left no stone unturned to have it enacted into law. Since its passage he has been consistently working to have its provisions enforced in an impartial manner and in such a way that the people of the United States shall obtain that protection from injury from adulterants that is their due under the law. How he has been hampered and his efforts nullified has lately become known; and we should give him our support and encouragement in the brave and unselfish stand that he has taken for the good of the public.

Disinterested and courageous exponents of a square deal for the people in the matter of protection from adulteration of foods in all its phases are to be found in the newspapers in many localities. They, too, should have our support and encouragement for they run the risk of loss of advertising patronage and are compelled to resist mighty pressure to get them to desist from their campaign of publicity and education which is very necessary in order that the pure food law does not sink into oblivion or be so emasculated that it will be worthless.

Let us, then, accept our duty in the premises and seek everywhere for information that will guide us in doing our part to have the public obtain that purity in food that is requisite for the maintenance of perfect health; and also use that information to instruct our patients for their good, so that they may know the necessity of using none but pure, unadulterated food products.

DISCUSSION.

DR. SEIP: I do not rise to discuss this paper, but I would like to say that it is a very proper time to have such a paper brought before the Society in view of the fact that there is a determined effort being made to retire that competent and able chemist, Dr. Wiley, from the Department of Agriculture. You are all aware, perhaps, that an effort is being made to displace him not because of his incompetency or dishonesty, but on a mere technical charge, and I believe it to be eminently proper that the President and Secretary of Agriculture should know that this Society endorses Dr. Wiley's conduct, and that suitable resolutions should be drawn up.

DR. GRAMM: I have them here.

CHAIRMAN BERLINGHOF: Any discussion? If not, Dr. Gramm will close.

DR. GRAMM: My thought is exactly in line with Dr. Seip's, and I have written up a series of resolutions. I think there is no way in which we can show our honesty of purpose more than by demonstrating to the public that we are not after their dollars so much as we are for bringing them to a state of health. The expressions that are sometimes heard that it is poor business to help a person keep well, and that it doesn't pay to keep your patients too well, are a disgrace to the profession. I, therefore, think it will be well if we put ourselves on record as condemning the adulteration of foods and the use of preservatives, and also endorsing this brave and courageous

man who has stood out against powers that few people can stand out against. (Dr. Gramm then presented resolutions endorsing Dr. Wiley, which were adopted by the Society.)

BUREAU OF MATERIA MEDICA

WILLIAM H. YEAGER, M. D., Chairman

ADDRESS OF THE CHAIRMAN.

WE believe that Hahnemann's law of drug selection supplies the best method of determining the most valuable drug to use in any given case of illness, and personally I cannot understand why this truth has not long ago been generally recognized. Perhaps the fault is to a certain extent our own. Perhaps we have held too firmly to minor details, and by insisting upon them have lost sight of the main issue. Perhaps we have not recognized the limitations to the applicability of the homœopathic law. Perhaps we have not acknowledged the truth that is in the other schools of medicine, and thus appear in a prejudiced light.

It is every man's duty to strive to prove the truth of the other man's claim. If, for instance, the allopaths had striven as hard to *prove* the truth of homœopathy as they have struggled to *disprove* it during the past century, they would long ago have seen the convincing bedside evidence of our claims. Then we could all work together to perfect this law and give it its proper sphere in the practice of medicine.

To-day the homœopathic physicians of the State of Pennsylvania should endeavor to keep in tune with the advanced stand that the science of medicine has attained. We should be sure that we are up to "concert pitch," so to speak. The schools of medicine should be like a great orchestra, each one playing his part in perfect harmony with the rest, and if we do not "tune up" *frequently* we will be the means of causing discord and confusion and thus waste time and miss opportunity.

It is generally conceded that the most important thing for us to do is to revise our drug pathogenesis, give it a more scientific construction and verify it by scientific methods of clinical investigation and bedside observations.

Would it not be a grand thing if a committee of ten men

(like the gentlemen who are to read papers here to-day, for instance) could get together and devote their entire time to this work, and only allow those drug indications which they have proven to be trustworthy to get into the new revision of our *Materia Medica*. This is not a one man's work, and right here I think has been our great mistake. It can only be done by combining the experiences of a number of men. Suppose we could collect on paper the every day experiences of ten active practitioners for a period of ten years and boil it all down, and cross out conflicting statements, do you not think we would have a valuable collection of facts? It seems to me that such a revision of our *Materia Medica* would be worth all it would cost, and would give to us a reliable working basis for our prescribing; then we could demonstrate with *certainly* to physicians of any school, as well as to ourselves, the truth of *Similia Similibus Curentur*.

Revision is more needed as a preliminary step than reprovings. We should take the provings that we already have and verify them and put them into scientific arrangement and construction, then after we have taken care of what we have, we might add to the supply.

It is something like the Biblical story of the talents. If we do not devote time and energy to the talent "homœopathy," over which we are custodians for the time being, it will be taken away from us. The truth in homœopathy can never die; the question is shall *we* be permitted to enjoy it, or shall it be given to another. As a profession, we have been working homœopathy for our own ends, instead of working ourselves for homœopathic ends.

The homœopathic law, if worked out to any degree of scientific exactness, should make for uniformity of prescribing and certainty in results. It should make the art of therapeutics a more and more exact science, but to bring this to pass, we must improve upon our present pathogenesis. As it stands to-day, it is almost impossible to *regularly* prescribe with accuracy. At least I am free to confess that such has been my experience.

We can truthfully say, without fear of successful contradiction, that the homœopathic physician is by far the most accurate prescriber in the practice of medicine to-day, and his results are far more satisfactory to both patient and doctor; but gentlemen, do not rest satisfied with partial success. Let us struggle on nearer and nearer to the goal of perfection.

MERCURY IN THE TREATMENT OF RHEUMATISM.

O. S. HAINES, M. D., PHILADELPHIA.

IN presenting the claims of mercury as a possible remedy for the acute and sub-acute phases of the rheumatic infection, one might almost say that it is a new or unknown remedy to a considerable proportion of medical practitioners. While such a statement will probably provoke smiles from some of our older members, nevertheless they will find few of our modern authorities referring to it; and, indeed, many of our internists, who see so many cases of rheumatic infection in their yearly services in great hospitals, never prescribe it.

We find no reference to its efficacy in the works of such observers as Hare, Forcheimer, Ortner, Anders, Osler; and in our own ranks, authorities like Jousset, Halbert, Hale, Bartlett and Cowperthwait seem to regard it as of slight importance. And yet it is the one remedy that will on many occasions bring to a speedy conclusion some of the most persistent and tiresome cases of rheumatic fever.

The deep aching pains in arms, forearms, hands and lower extremities with stiffness; as well as the sharper, tearing pains produced by mercury, do not seem to be among that drug's acute effects. Rather are these the result of the longer continued activity of the drug, developing slowly. The rheumatic picture produced by mercury is then one that has been developing rather slowly; and we may find a certain analogy to this in the fact that the kind of rheumatic attack which we *cure* by means of mercury, generally lacks the sudden onset, the sharp, acute intensity, the large effusions within serous sacs at joints and the distinct redness and hyperæmia of many of our other recognized rheumatic remedies. We have heard it stated that one of the special indications for mercury in rheumatic fever, is the localization of the disease in one particular joint; generally a large one. Such localization is uncommon in the majority of instances of rheumatic fever; while, on the other hand, it is usual in venereal arthritis.

It has always seemed to us that in rheumatic fever we might regard the case just as favorable a one for mercurial medication, should the disease fly from one joint to another; provided all local joint manifestations are distinctly cold in type. That is, there must be an *absence* of that red, shiny, tension characteristic of swelling caused by copious effusion within the

joint sac, accompanied by a high grade of inflammation. The usual mercury appearance, if there be swelling, might be described as puffiness, bogginess or oedema of the tissues that surround the joint.

The history is generally one showing rather slow progress and a marked lack of response to the ordinary expedients which cases of rheumatic fever are so apt to have received. There will not be a high temperature curve. It is ordinary to note the temperature between 99.5 and 101; with the accession at night.

Certain guiding features in the typical picture of rheumatic fever calling for mercury, have been established, and upon these the prescriber may depend with considerable confidence. These may be stated to be:

1. The aggravated character of pain which the patient endures from sundown to sunrise.

2. The restless nights of suffering, compared with the comparative lessened pain during the early portion of the day.

3. The copious sweating, of an unpleasant odor, which lasts the entire night regardless of season or of covering.

These features combined with the history and the local joint appearances will be found quite reliable indications for mercury.

Two distinct *modalities* generally appear and may be recognized: 1, aggravation of all sufferings *at night*. 2, aggravation of local joint pains by *movement* of the affected limb.

The disorders of the general nutrition produced by mercury resemble, in many features, those produced by acute intoxications. Pallor, weakness, prostration, emaciation, anorexia, foul breath, and so on. We shall always find our mercury case exhibiting these or similar nutritive disturbances. The alimentary tract is never sweet and clean. The mouth is invariably foul, the tongue flabby, large and heavily coated; the breath heavy and mercurial.

It seems to us that the type of rheumatic infection thus described, is of late years the type commonly met with in practice. In enough cases to be suggestive, we have found mercury to be the remedy that was more successful, certain and prompt in bringing about convalescence than any other one.

It may not be essential, but the third decimal trituration has been quite satisfactory. The *mercurius solubilis* of Hahnemann is probably superior to any other forms of mercury in these cases.

EDITORIAL

WHAT SHALL WE DO FOR THE MODERN BUSINESS MAN?

THE increase of functional nervous disorders and organic diseases of the brain, kidneys and circulatory system among American business men has attracted the attention of the medical profession throughout the United States. Dr. Frank C. Richardson, in an article entitled, "The Problem of American Business Neurosis" (*New England Medical Gazette*), has forcibly called attention to this subject. He presents the following conclusions: First, that American business life is producing in its followers a combined neurosis partaking of the character of neurasthenia, psychasthenia and hysteria; second, that the factors in the production of this neurosis are chiefly mental and the excessive use of alcohol and tobacco; third, that a business system that makes such pernicious exaction of its devotees as prevails in America to-day must of necessity be changed or we shall be the progenitors of a race of incompetents.

Any physician whose practice brings him into contact with business men, and especially with those who fill the more responsible positions in the business world, can heartily agree with the above statements of Dr. Richardson. Scarcely a day passes that we are not called upon to treat some man in the prime of life, who perhaps had formerly been noted for his physical strength and for his mental balance, but who has been reduced to a mental state that is pitiable to behold. He is unable to stand the least annoyance or vexation, is the victim of a thousand morbid fears and obsessions, and the man whom the public at large has come to look upon as a very tower of strength we find in the mental and the physical attitude of a weakling.

An inquiry into the manner of living of such an individual reveals at once the factors that have reduced him to this condition. In the vast majority of instances we find that the patient has been accustomed to hurriedly eat a scanty breakfast and then rush to the office where keen competition keeps his mind engaged with a thousand and one details until he leaves to return home in the evening. After a heavy meal he either de-

votes the remainder of the day to commercial and financial problems of the most intricate character, or in the name of recreation employs himself in a strenuous game of cards or in an exciting entertainment at the theatre. In many instances we find that alcohol in one form or another is used to spur on the failing nervous energy and to whip the flagging powers into a semblance of spontaneous activity. Then in the short intervals of rest from this turmoil and strife, the individual resorts to the use of tobacco for its sedative effect upon his nervous system. Thus the day is spent under a constant mental strain with more or less frequent doses of alcohol to stimulate the brain into greater activity, and the use of tobacco from time to time for the opposite effect.

When we are consulted by such a patient we realize at once the uselessness of expecting a cure from the administration of drugs unless the causative factors in the condition can be removed. This important step in the treatment, upon which Hahnemann laid so much stress, is not infrequently a difficult one to carry out. *The "successful" business man is very likely to be impatient and to exhibit marked disinclination to modify his habits in any way, especially if he feels that such modification will curtail his financial income.*

The first step in the treatment of such an individual, as a rule, is to insist that business affairs shall be so arranged that the patient is relieved of small details as far as possible, and is given sufficient time daily for relaxation and recreation. Patients at times will insist that this is impossible, and it is then the doctor's duty to inform them that if such is the case they need not expect any permanent improvement in their health. *If a man values money more than his health he must expect to abide by the results of his conduct.*

Many busy men, however, are rational enough to see the necessity of modifying their methods of living, and in such cases the physician can give some very helpful advice. As Dr. Richardson suggests, "an hour later at business in the morning, affording time for the bath, exercise and walk to the office without hurrying; leaving business an hour earlier in the afternoon for motoring, golf, horseback riding, or any congenial exercise, are all concessions to health that are usually possible to secure, and will be found to be of immense advantage in restoring nervous equilibrium." The habit of retiring to bed early is also one that should be cultivated by all persons of ner-

vous temperament, as it is during sleep that repair of the nervous system takes place.

Many physicians have observed an increasing tendency on the part of business men to resort to the use of alcoholic stimulants. In the majority of instances this is done for the purpose of stimulating the mental and physical activities, and not for any desire for the liquors themselves. From a scientific standpoint there can be no question of the harmfulness of such a habit. *A healthy man who is doing a normal amount of work and securing a normal amount of rest needs no artificial stimulation.* An individual who feels that he cannot get along without such stimulation is either over-worked or suffering from some diseased condition. The rational procedure in this case is not to resort to an artificial stimulant, but to reduce the amount of work or to take such treatment as is necessary to restore the body to a normal condition.

The result of the daily use of alcohol in small quantities as a "bracer" may be well illustrated by the following case that has come under our personal observation: An active business man of forty years of age found that he was unable to meet the demands made upon him by his business without the use of a glass of whiskey three or four times a day. Being anxious to make a certain sum of money before retiring from business he continued this practice for a period of three years. About three months before the time that he had set upon for withdrawal from business he contracted pneumonia. The disease ran a comparatively mild course and the lung involvement was slight. After seven or eight days the lung began to clear up quite rapidly, but the heart, which had exhibited more or less weakness throughout the illness, failed steadily. It seemed to have no reserve power whatever, and although there was no valvular lesion present it was impossible to get the heart to respond to medication of any sort. This progressive cardiac failure continued and resulted in the patient's death within a few days after the pneumonia had subsided. In this case the patient's energy and reserve power had been so exhausted by the constant stimulation from alcohol, although the man was never intoxicated in his life, that he had nothing to fall back upon during a period of illness. Alcohol as a daily stimulant to mental activity is a failure, and the man who finds it necessary in order to conduct his business will sooner or later, in all probability, suffer from some disorder of the kidneys, circulatory or nervous system.

The abuse of tobacco has also a decidedly bad influence upon the nervous system. The use of two or three light cigars daily may be an aid, rather than a menace to the nervous system, but the excessive smoking is unquestionably productive of nervous diseases.

A point that the doctor frequently overlooks in managing these cases is the attitude of the patient toward life and toward himself. Many men seem to sincerely believe that the whole aim and object of life is to accumulate money, and if they succeed in this they believe that all other things shall be added unto them.

The doctor should endeavor to explain to the patient the fallacy of such a view, and to point out to him that true success is not a mere matter of dollars and cents. A broader outlook upon life and a cultivation of hope, courage and faith are often of great help in enabling the overworked business man to come to himself and to regain a normal physical and mental condition.

G. H. W.

THE RELATION OF THE MEDICAL JOURNAL TO THE MEDICAL MAN.

This is a problem that the average medical man is indisposed to consider, and if he does consider it at all, the dominant expression may be in words more forceful than polite; for the medical man is tormented to subscribe for journals he does not want, and his mail is so loaded with journals that he does not read, that the journal problem is often an unattractive and vexatious one.

Nevertheless, we cannot do without them, and no one who makes the slightest pretense of keeping abreast of medical progress would attempt to.

The *HAHNEMANNIAN MONTHLY* has assumed a new relationship to the profession of this State; and by virtue of that fact its management is keenly conscious of a new and added responsibility and duty.

The predominant ambition, motive, and effort of this journal will be to obtain and maintain the closest possible touch with the profession, and a special effort will be put forth to serve in its capacity of the "Official Journal of the Homœopathic Medical Society of the State of Pennsylvania" in such a man-

ner as will materially advance the interests of the homœopathic profession. The new management is receptive of, and attentive to any criticism that has been made. It recognizes the wide divergence of opinion in the profession, and that certain expressions that might be acceptable to one group, might be equally repellent to another. It remains its fixed and unalterable purpose not to be the organ or servant of any one clique or division; but to endeavor with all sincerity and earnestness to represent the entire profession.

It is the purpose of the management to add to the list of official "Collaborators" men of well known professional attainments, whose names insure the fact of the strictly representative character of the journal. It is the further purpose to make a special effort to sustain a closer relationship to the local societies and clubs; not only to maintain a special official roster of all meetings to be held; but where possible to print a synopsis of the meetings. Plans have been formulated by which it is hoped to produce a series of articles that will be of special interest to the general practitioner. While the unusual and exceptional cases may appeal more to our interest and curiosity, the management of those cases that form part of our routine duty is of vastly more importance and benefit. It is the most earnest desire of the management to make this a really helpful journal, one that gives genuine assistance in the solution of the problems that most frequently appeal to the practitioner.

The success of a medical journal is due quite as much to the co-operation and support of its readers, as it is to any possible effort of the management, because the bulk of material in each issue is furnished by its subscribers, and we want the profession to feel that this is their journal. We recognize that the only excuse and warrant for a division of medical schools lies in the fact, that it is at present the only known method of securing an adequate and sympathetic teaching of the principles of homœopathy; and while the facts of general medicine will receive their proper attention, a renewed and sustained effort will be made towards bringing into greater prominence our special system of therapeutics.

The opinions that have just been expressed do not merely reflect the personal views of the writer, but are expressed by him at the request of the Publication Committee of this journal, as giving voice to the new order of things determined upon.

D. P. M.

GLEANINGS

SOME OF THE MORE IMPORTANT LEGAL ASPECTS OF THE PRACTICE OF MEDICINE.—An article under the above heading by Henry M. Friedman, M. D., in the *New York Medical Journal*, contains much information of practical value and interest to physicians.

The power to regulate the practice of medicine by the State, comes under the "police power" of the State—that is, the State really has power to take property without "due process of law," in the interest of health, safety, and the welfare of the public in general. In furtherance of this power most States have passed statutes defining what constitutes the practice of medicine. For example, in New York, the Consolidated Laws of 1909, ch. xlix, The Public Health Law, define a practitioner as follows:

"A person practicing medicine within the meaning of this act is one who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or physical condition and who shall either offer, or undertake, by any means or method to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition. This act shall not be construed to affect the exercise of the religious tenets of any church."

The time of the courts is taken up more with those who assert they do not practise medicine than with those who admittedly practise medicine but without license. The courts have maintained that one who puts "Dr." before, or "M.D." after his name, with an intention to receive patients, offers to practice medicine within the meaning of the act. So one who claimed the right to treat people by "suggestive therapeutics" was held to practice medicine and to be amenable to the law. In a lower court it was further held that Christian scientists were practising medicine and subject to the requirements of the law. In a case in point, it was held that "the liberty of conscience hereby secured (by the public health laws) shall not be construed to excuse acts of licentiousness or justify practices inconsistent with the peace or safety of the State Christian scientists have the right to believe that they can heal by prayers, but this court is of the opinion that if they carry and put that belief into practice for hire and solicit patients by advertisement, then they exceed their rights as individuals under the law and come directly within the prohibition of the constitution. They must subordinate their beliefs to the rights of the community and the State as an entity when the free exercise of such beliefs either impairs or endangers the health of the people or tends to place their health in jeopardy so that the safety of the State will be affected."

Again, in the Supreme Court of New York, Justice Williams held that "A person who holds himself out to treat patients for physical ills should know whether to do anything, and what to do to relieve his patient, otherwise he should not be permitted to practise on the unfortunate sufferers, who like the poor, are always with us and many of whom need the protection of the State against quacks in and out of the practice of medicine. I have no sympathy with this class of practitioners, who seek to remain outside of the control of the State, for the welfare of the people."

The regularly qualified physician merely contracts with his patient to use reasonable care and have as much skill as a physician, in like locality and under similar conditions, should have. He does not contract to cure and, in fact, such a contract is void. Therefore, one cannot counterclaim failure to cure against a bill for services.

A contract with a physician not to practise in a certain locality is not a contract in restraint of trade and is valid; nor is an agreement by physicians to fix the fees, a violation of the "anti-trust" laws.

The former question comes up usually when one physician buys the practice of another, paying among other things, for the "good will"; it would be manifestly unfair to allow the selling physician to start practice in the same or nearby locality and get back the patronage which he agreed to sell.

It might here be well to note that some States have held it to be within the "police power" of the State to prohibit physicians from advertising or soliciting patients.

The physician's contract, to use proper care and have reasonable skill in the treatment of his patient, is an absolute one, for breach of which he is liable for damages in a suit in malpractice. It is enough to show that the physician was learned in his profession, and that he had treated other similar cases successfully in order to establish the fact that he had sufficient skill. The burden of proving affirmatively however, that the physician did not use reasonable care or have sufficient skill, lies with the one alleging it—the patient. The mere fact that the physician delayed for a long time in sending a bill, is not a presumption against him; nor that he was insured against such suits.

A physician is not liable for a mere error in judgment; nor is he liable merely because the treatment was unsuccessful. The question is not whether he made the proper diagnosis, but whether proper care and skill were used in making the diagnosis. It is a question of fact for the jury whether he used the necessary care and skill and whether the methods used displayed such care and skill. In reaching this conclusion the jury may be assisted by expert testimony.

A physician is not liable for the negligence of his nurses or internes unless he was negligent in their selection or delegated to them work which, under the circumstances, he should have done himself.

One action for malpractice against a physician is not a bar to another by the same patient for another injury.

A very important point to remember is, that a judgment for services, or a default by a patient when sued for services, is forever a bar to a suit in malpractice against the physician, for that particular injury, since the judgment or default is an implied acknowledgment of the value of, and the competence of the services.

As a general rule, a witness must testify to all matters coming to his knowledge, but a physician, among others who act in confidential relations, cannot be made to testify to matters which came to his knowledge from persons with whom he had the relation of physician and patient and the knowledge was gained while so related and was necessary to know in order to treat them. Such knowledge, information, or communication is privileged from divulsion under the doctrine of "privileged communication." The theory of this doctrine is, that it is the policy of the State to encourage people to consult physicians, in the interest of their health, without fear that their communications will be divulged. If the physician learns anything which was not necessary for him to know in treating his patient it is not privileged, and he can be compelled to testify concerning it.

The prohibition in this doctrine is entirely for the protection of the patient and he can waive it actually, impliedly, or through his legal representatives.

A physician appointed by the court to examine a person before it, for the purpose of testifying to his condition, is not in the relation of physician and patient and can testify; nor is one deputed to examine a person in behalf of this person's opponent prevented from divulging what he learned.

There are two exceptions to the doctrine of privileged communications, namely, in murder cases, the physician can testify to the symptoms of his patient; and in rape, on the persons of minor females, he can testify to conditions found, because in both cases "the crimes are so heinous that it is the policy of the State to revoke the privilege in order to punish the crimes."

The administration of hospitals falls, necessarily, on the physicians. Hospitals, catering to the poor, are charitable institutions and are not liable to their free patients for injuries received through the negligence of the medical staff, nurses, or attendants, on the theory that the funds of the hospital are held in trust for the poor—the beneficiaries of the trust fund—and should not be diverted to any other purpose. An employee of a hospital, or a pay patient, is not a beneficiary of this trust fund and can recover for any negligence chargeable to the hospital, its staff, or its attendants. Physicians and hospitals, except the latter, on the trust fund doctrine, are liable for the performance of unauthorized operations except in the case of extreme emergencies in order to save life, where the patient is in no position to consent or to object, since there the law presumes a consent. An unauthorized autopsy cannot be performed; not even if a prior operation was authorized. A body can be exhumed for autopsy only in criminal cases and never in civil cases. Notification, by the coroner, to a hospital to perform an autopsy is a complete defence in a suit for damages brought by the representatives of the deceased.

The crime of abortion is now a felony and, for the death of the victim, the accused is liable in manslaughter. "Any person who with the intent to produce or promote a miscarriage or abortion, advises, sells, gives, or administers to a woman, whether pregnant or not, or who with such an intent procures or causes her to take any medicine, drug, or article, or

uses on her, or advises for her, the use of any instrument or other method or device to produce a miscarriage or abortion, not a medical necessity, shall be guilty of a felony." It is immaterial whether the drug could have produced the abortion or not.

Evidence that the accused has committed other abortions is not admitted against him, in this instance, on the doctrine, in the law of evidence, of the inadmissibility of similar, but unconnected facts, to prove the fact in issue. Nor can the uncorroborated testimony of the victim be admitted against the accused, on the doctrine that the uncorroborated testimony of an accomplice is inadmissible to prove the crime. The dying declaration—ante-mortem statement—of the victim is admitted, as is the dying declaration of a murder victim, against the doctrine of the inadmissibility of hearsay evidence (which dying declarations are), since in these cases the declarations are made "on a solemn occasion"—before death—and because the statements are spontaneous in nature, with no apparent motive for malice or untruthfulness. These statements can be rebutted, since hearsay declarations are not very strong evidence. So also in crimes against chastity—of which physicians are so often accused—the accused cannot be convicted on the sole, uncorroborated testimony of the female victim.

Physicians' fees, or compensation for services, depend wholly on express or implied contracts to pay for such services. But as a condition precedent to recovery for such services the physician must have been a legal practitioner prior to the rendition of the services.

At common law, physicians could not recover for their services; they got only what their patients saw fit to give them—an *honorarium*.

In the absence of an express contract, the law now implies an obligation to pay the reasonable value of the services,—a quantum meruit. This reasonable value depends on the locality, reputation of the physician, and the nature of the services.

In proving that the charges were reasonable, it is sufficient to show that the physician's rates were well known to the patient defendant, in order to prove an implied agreement to pay that sum. The reasonableness of the charges can be proved by expert testimony. But it is not proper to ask the expert witness what he would have charged for those services, but only what those services were worth or what the customary charges for such services were.

Where, in an action in quantum meruit, there is no conflict in the expert evidence as to the reasonableness of the charges, the jury cannot disregard the same and use their own "judgment."

Where the evidence showed that a physician treated a child as the family physician, he could not recover as a specialist in diseases of children merely because he was one.

The pecuniary condition of the patient has been held, in some States, inadmissible to show the reasonableness of the charges; in other States it has been held "that physicians' charges for services may be properly based on the patient's ability to pay." In an action to recover for a surgical operation, it appearing that the amount to be charged depended on the pecuniary condition of the patient and that there was no fixed standard value, the patient's pecuniary condition can be shown. So the

physician's standing, reputation, and skill bear on the value of the services. Furthermore, in an action for compensation for an operation, the "physician's measure of recovery is not limited to a sum commensurate with the labor performed and the skill or responsibility, but the jury should take into consideration the exhaustive studies, the time consumed, and the expense incurred in acquiring his professional knowledge and skill."

Evidence that medical ethics prohibit physicians from charging each other is admissible to negative an implied promise to pay.

If a physician sends in a bill, say for \$400, and receives a check for, say \$200, "in full payment," which he accepts, without immediately claiming the balance, he is precluded from claiming the balance later; he should have returned the check and claimed the full amount or kept the check and immediately given notice of the balance claimed.

A physician's account books can be used, after his death, as evidence to prove the rendition of the services, but the items charged must have been for services to the person sought to be charged and not to third persons. Scrap memoranda will not be admitted; only regular account books, since in the latter case they are admitted only because there is a presumption of truth, in the law of evidence, in regular books of business.

Receipted bills and credits in regular account books can be used as evidence to prove a birth on the theory, in the law of evidence, that a receipted bill or a credit is an "admission against interest," and such an admission is its own guarantee for truth.

As a general rule, a physician can hold responsible him only for whom the service was actually rendered, or, where a duty exists, on the part of the person sought to be charged, to furnish medical attendance for the persons to whom they were rendered, as a wife or child. All other attempts to charge third persons must be based on express contract or on a written guarantee. A brother is considered a stranger, and merely assisting in arranging for an operation on his brother does not raise any implication of a promise to pay. "The right to recover for services rendered to third persons must rest on an express contract or on facts from which an implication to pay can be inferred."

In case of railroads, or other persons or institutions employing agents, the physician must prove that the agent actually had authority to employ him, before the principal can be charged for the services.

A physician can recover for the services of his students or assistants.

A judgment for services forever bars a suit in malpractice. The mere fact that a physician has been guilty of negligence in treatment, resulting in damage, does not preclude him from recovering any compensation; the amount of recovery depending on the amount of damage.

THE PRESENT STATUS OF THE TUBERCULIN TEST.—Dr. Lawrason Brown states that the von Pirquet and the Calmette test for tuberculosis has greatly extended the use and knowledge of tuberculin. Among laboratory animals only those which were tuberculous reacted to tuberculin. Normal animals had tuberculin tolerance, but no tuberculin anaphylaxis. Many autopsy reports threw grave doubt upon it, and personally he believed disproved all published statistics which went to show that other diseases

reacted specifically to tuberculin. A slight tuberculous infection might be sufficient to cause a reaction for a time, and yet leave no permanent pathological change visible to the naked eye. The conjunctival test had produced a number of unfortunate accidents, but by excluding all patients who had ever had trouble with their eyes and using only from one to five per cent. solutions of the old tuberculin, the test seemed comparatively safe. There was some danger in the cutaneous test, but it was so slight that it might be disregarded except in scrofulous children. The tuberculin test sometimes resulted positively in healthy men, a circumstance which warned us not to depend too much upon it. Also failure to react to ten milligrammes of old tuberculin, given subcutaneously, did not exclude clinical tuberculosis. However, in the presence of indefinite symptoms these patients did not require treatment. A negative subcutaneous test in a tuberculous person might indicate either the absence of receptors at the site of the lesion or the presence of free antibodies in the blood. If we excepted, for the time being, leprosy, tuberculin was a specific test for the detection of tuberculous infection. In practice, exposure to infection, characteristic symptoms, such as hæmoptysis, pleurisy with effusion or dry pleurisy on both sides, and localized persistent physical signs at one apex, were diagnostic data of far more importance in clinical tuberculosis than that derived from the tuberculin tests. The subcutaneous test was still the most reliable of the tuberculin tests.—*N. Y. Med. Journal.*

THE ORIGIN AND TREATMENT OF FLATFOOT.—Ewald (*Klinisch-therapeutische Wochenschrift*) says that one-third of all city school children examined by him have flatfoot, and one-third more have a more or less broken-down arch. The reasons that so few persons with flatfoot consult the physicians are, in the first place, that not all flat feet are painful; and in the second place, on account of the cost of going to the doctor many turn aside to the dealers in orthopedic apparatus, and to the shoemaker. Furthermore, in many cases of flatfoot the physician makes a wrong diagnosis of rheumatism, gout, or even lues or tuberculosis. It must be kept in mind that only a slightly broken arch may give rise to very serious pain and disability.

A flat or broken arch may become painful through long standing, as in the case of apprentices and shopkeepers; from increase in body weight, as from obesity or pregnancy; from injuries, as trauma to the foot or leg; from resumption of use after long illness.

Studies in the skeleton, at autopsy, and by means of the Roentgen rays show that the pain results from displacements in the relative position of the various foot bones, especially at the calcaneo-astragaloid and the calcaneo-cuboid joints, as a result of which there is set up an inflammation and osteophytes are produced. These conditions may exist a long time without pain, but if a predisposing cause supervenes, pain is engendered.

As regards the treatment, the physician should endeavor to prevent the development of flatfoot by warning parents against allowing their children to start bearing weight on their feet or walking before the tissues become strong enough to stand the strain. Children should go barefooted as much as possible, and when wearing shoes, these should be fashioned

to permit the feet to retain the normal shape. There should be put into the shoe some form of adequate support for the arch of the foot.

When the physician sends the patient with either a painful or a painless flatfoot to the dealer for a support for the instep, it is not sufficient that the support be placed in the shoe he is wearing, but the shoe with the support incorporated in it should be made to order. It is best to make a plaster cast of the foot in its proper position and have a support constructed from that. If proper methods are not followed the supports will soon bend or break and lose shape, and the patient will become possessed with the idea that nothing can be done to relieve him.—*Charlotte Med. Journal*.

FEEDING IN GASTRIC ULCER.—Singer (*Wien. Med. Klin.*) has adopted, with some modifications, Lenhart's method of treatment of gastric ulcer, the main principles of which, as compared with those of the older method, being to obtain a larger value in calories with a smaller volume. In spite of the favorable statistics with regard to hemorrhages on Lenhart's treatment, the author finds that, after a severe hemorrhage, patients can often not bear an immediate beginning of feeding by the mouth. Thus, in one of his cases in which there had been a hemorrhage eight days before admission and another on the day of admission there was a recurrence of bleeding when food was given by the mouth three days after admission, and, again, on another tried four days later; only after six days of rectal feeding alone was combined rectal feeding by the mouth able to be resumed without giving rise to hemorrhage. The increase of weight in cases of gastric ulcer treated on Lenhart's system is most striking, as seen in diagrams showing the steep rise in the weight curve. Eggs, milk, cream and butter are a good foundation for the diet and are extraordinarily beneficial for the hyperacidity so often present; when there is a good tolerance for fats the author lays special stress on the giving of cream and much butter. Carbohydrates are not absolutely excluded. Nearly always the author adds "hygiama" or bioson to the milk, and puree of potatoes, and foods, such as Nestle's, Mellin's, etc., may be given. When there is much vomiting ice prepared with hygiama and milk has repeatedly been found to give good results. The loss of weight which follows a few days' absolute rest from stomach feeding is not to be considered of importance as it can soon be made up. Indeed, on Lenhart's system, by the ninth day 2,000 calories of food value are being administered as compared with 1,000 calories on the fourth week on the older method. Rest in bed is one of the most essential conditions of a good cure of ulcer, and Singer finds that his private patients, after a cure has been effected, are much more willing to avoid indiscretions of diet than to permanently cut themselves off from physical over exertion. Yet absolute proof that an ulcer has healed is not present after the most apparently successful cure. With respect to treatment by drugs the author has found gelatina alba in five to ten per cent. solution and adrenalin useful in combating hemorrhage. Anæsthesin acts very favorably on the symptoms, and hypersecretion and hyperacidity are often influenced by the use of the one or two per cent. solution of anæsthesin in mistura amygdalina. When this fails atropine preparations, and especially cumydrin, given subcutaneously, may be suc-

cessful. Both Lenhartz and Leube lay stress on the early administration of iron in the form of Blaud's pills; the author has often, however, found a great intolerance of Blaud's pills to be present, and is chary of ordering iron in the early stages where recurrence of hemorrhage is threatened. In the later stages he orders iron in an easily assimilable form, especially hemoglobin preparations. In early cases he gives intramuscular injections of "metharsenate de fer." With regard to operations, the author agrees with Payr that entero-anastomosis is indicated in ulcers at or near the pylorus and in stenosis due to scar tissue, but that resection is suitable for extra-pyloric ulcers.—*Charlotte Med. Journal.*

RIGHT-SIDED ABDOMINAL PAIN IN WOMEN.—In discussing this subject the author points out that the cecum often complicates the diagnosis in cases where this type of pain is present. The cecum often lies in the true pelvis, especially in women who have borne children, and it is by no means uncommon to find the pelvis entirely occupied by a cecum distended with gas, such a condition of this organ rendering it often a source of vague pain. A case of this kind is referred to by the writer, in which an indefinite swelling, supposed to be an ovarian cyst, could be felt in the right iliac fossa. On percussion, however, it yielded a high resonant note. The patient being in acute pain, it was decided to incise the abdomen, when the swelling was found to be due to an enormous accumulation of gas in the cecum, the pressure being so great as to cause the peritoneal coat to split in two places. The cecum had partially twisted on its axis. The gas was evacuated through a puncture, the edges of the small opening being tacked to the margins of the incision as a safeguard, and an admirable and permanent recovery resulted.

An important form of pain in the right flank is associated with a painful anal fistula. The pain during defecation in the presence of the latter condition often causes patients to avoid this act as much as possible, and occasionally the spasmodic action of the sphincter so interferes with the regular emptying of the bowels that the colon and cecum become abnormally distended. In these cases the more or less constant pain in the right flank has led the practitioner to attribute it to ovaritis, appendicitis, and in older women to cancer. In many cases the author has found chronic right-sided pain associated with a painful anal fistula to be cured by dilating the sphincter under an anesthetic, and then clearing out the bowels with a dose of castor oil.

Some of the most misleading cases are those in which young women have been treated for indigestion supposed to depend on a chronic ulcer of the stomach when the appendix has been the cause. When gastric symptoms are sufficiently severe to warrant an operation and the surgeon finds the stomach normal on inspection, it is his duty to examine the vermiform appendix and he will often find it abnormal. Its removal in such a case will more certainly give relief than the gastrojejunostomy formerly recommended.

In dealing with persistent right-sided abdominal pain, where it is impossible after careful clinical examination to decide which organ is at fault, and the patient's condition is such as to justify operative interference, it has been the author's custom to make a fairly free incision in the

line of the right linea semilunaris and systematically examine the organs on the right side of the abdomen. This incision allows of examining the pelvic organs, including the ureters, cecum, appendix, kidney, gall-bladder and ducts, pancreas, duodenum, pylorus, and liver. It also has the advantage of permitting the surgeon to deal with conditions requiring surgical treatment in almost any of the organs mentioned. It occasionally happened that nothing could be seen to account for the pain, and in a few cases some unexpected pathological conditions were found. Occasionally an operation revealed the presence of serious and painful disease in young women who had been treated as hysterical by their parents and physician.—Bland Sutton, in *The London Practitioner*.

DRAINAGE OF THE PELVIS.—Holzbach says there is a difference with regard to drainage between the practice of general surgeons and that of gynecologists, especially since the former have modified their procedure in intra-peritoneal purulent inflammation, particularly of appendicitis. But the great gynecological operations, like cancer and adnexal operations, have made it necessary once more to consider drainage. This difference is due to the dissimilarity of the bacterial flora coming into play and to the difference in the topography of the field of operation which presents anatomical conditions more favorable in the gynecological operations. It is not common in the latter to have a general peritoneal infection; the disasters occur rather in consequence of ascending infection from the pelvis. The well known facts respecting the drainage tube, dating back to Hegar in 1886, that it drains but for a few hours, have finally led to the disuse of drainage by means of a tube; and the same is largely true of the gauze drain. When, however, the latter is used in the pelvis we may with advantage make use of the physiological occurrences surrounding a gauze drain or a tampon, for here its effect is for a few hours up to forty-eight, to carry off secretion, but in addition what is more important its presence so stimulates the tissues in contact with it that a secure barrier against infection is developed which most effectively excludes infection. With this object in view and used for this purpose the gauze drain or preferably tampon should again be used more extensively.—*Zentralbl. f. Gyn.*, 1911-16.

THEODORE J. GRAMM, M. D.

ASEPSIS IN GYNECOLOGICAL OPERATIONS.—von Franque says that the strict asepsis as comprised in all the modern means which contribute thereto, even in the hands of an expert such as Zweifel, has not been able to bring about the improvement in results hoped for. Even Zweifel himself draws the logical conclusion from his results that the strictest protection of the wound has not been able to bring better improvement beyond a certain point. From bacteriological studies it has been proven that even with all the modern means it is not possible to operate without the presence of germs, and with the very strict protection of the wound the clinical course of cases has not been materially different from what it was before the use of many recently introduced means. In major operations there is still a rise of temperature on the second day. von Franque has lately been satisfied with brushing the area of operation with iodine and

the use of Burbringer's method of disinfecting the hands. Kustner's statistics are not convincing for the value of using rubber gloves. The author believes that one must confess that the use of rubber gloves has not accomplished what they promised and they are not essential for satisfactory healing. Of course they protect the operator and are advantageous in pus cases; for the hand protected by the rubber glove can more easily be cleansed. In vaginal examinations they are indispensable.—*Zentralbl. f. Gyn.*, 1911, 1.

THEODORE J. GRAMM, M. D.

ETIOLOGY OF RACHITIS.—Believing that rachitis is due to a hypersecretion of the genital gland Stocker (Luzerne), made the following experiment: He implanted the ovaries of a healthy cow into the body of a calf fourteen days old. After four weeks it was noticeable that the animal was disinclined to stand or walk, but that it was almost always lying down. The cause of this appeared to be a sensitiveness to pressure of all the bones of the extremities, especially in the region of the epiphyses. Six weeks after the operation the animal had an attack of diarrhoea and loss of appetite not attributable to any external cause. As a control a calf two weeks younger was held under observation, and this animal in three months time had exceeded the operated animal in growth. Five months after the operation the animal had the typical limb curvature of rachitis, and the back was also affected. At the section performed after seven months the implanted ovaries were found smaller but of normal structure, the ovaries proper to the animal of normal size, the suprarenal glands almost disappeared, the pituitary body and thyroid glands of normal size. The clinical picture was that of rachitis. The author comments that this is perhaps the first experiment tending to show the inhibitory action of the ovaries upon growth. There is believed to be an antagonism between the secretion from the adrenals and the ovaries, and upon this fact rests the curative action of adrenalin in osteomalacia. Hypersecretion of the ovaries also hinders the development of the adrenals and may induce their atrophy. According to Frenkel osteomalacia is due to the same cause. Both diseases which show so great pathological similarities, appear to be identical in their course and etiology. The difference between them is rather in the time of their appearance. Suggested by this theory the author fed a seventeen year old girl, typically affected with rachitis, with the milk of a castrated cow, and the result was a rapid relief of the pains and at the same time there was a great increase in the growth of the child. The bone deformity of course remained.—*Zentralbl. f. Gyn.*, 1911, 109.

THEODORE J. GRAMM, M. D.

Monthly Retrospect OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

KALI CARBONICUM.—By Dr. D. Ridpath. The subject of my paper to-night is Kali Carbonicum—Carbonate of Potash.

This substance is one which is given frequently and almost in a routine manner by the old school physicians, and notably in gastric trouble,—dyspepsia with heartburn and sour eructations—acidity of the stomach as it is called. It is given in crude doses so as chemically to combine with the acids of the gastric secretion. In this way it effects immediately and chemically the neutralization of acidity; and for the time being at least a certain amount of relief is afforded. The natural sequence, however, is that further acid secretion is stimulated and the condition, so far from being cured, is aggravated.

We use Kali Carbonicum in a potentized form, but I must premise that this remedy is not used as often as it ought to be, or as frequently as it is undoubtedly called for.

Kali carb. has very marked and striking symptoms which appear in the provings, particularly the character of the pains, stitching, burning, tearing pains—and the time of aggravation of the various symptoms—2, 3, 4, and 5 a.m.—is a very notable condition, dyspnoea, cough and pains all being worse at those times.

Hering's "Guiding Symptoms" has forty-five pages of Kali carb. symptoms, and "Chronic Diseases" has fifty-four pages of provings of Kali carb. by Hahnemann, Garsdorff, Goullon, Hartlaub, and Rummel.

Kali carb. is a very difficult remedy to study, and so also the Kali carb. patient. He is often so very contradictory and variable, and for these reasons this remedy is very often passed over.

Before making any further comments I shall give you a few of the striking symptoms of Kali carb. as given in Hering's Guiding Symptoms" and chronic diseases.

This will be rather tedious, but if you can pay attention it will be useful.

Mental symptoms.—The Kali carb. patient has great irritability, he is irascible and quarrels with everybody. The least touch irritates him, especially if touched accidentally on the feet. There is a great tendency to start.

Great aversion to being alone, fears he will die.

I have known such a patient, when left in the house alone, to lock himself in his room and sit with his back to the fire, with a stick in his hand.

keeping a keen look-out in case the door should be forced open, and some one should enter to attack him.

The Kali carb. patient is also very easily moved to tears. He weeps very much; he fears he will die. Noise is disagreeable. There is great despondency and sadness when in the open-air, disappearing on entering the house.

His moods vary very much; he is at times quiet and docile, at other times angry and excited at trifles. Hopeful then despondent—alternating moods.

Vertigo.—Frequent vertigo—must lie down.

Head.—Vertigo on turning.—The stitching, sharp, tearing pains are very marked in Kali carb. Stitches in the forehead < by stooping. Headache from riding in an open carriage, i. e., pain worse in the open air. In all these headaches there is the other marked modality, viz., < 2, 3, 4, or 5 a.m.

Face.—One very characteristic appearance is often noted in a Kali carb. patient, viz., the presence of a baggy swelling between the upper eyelid and eyebrow. Boenninghausen speaks of one epidemic of whopping cough in which the majority of cases called for Kali carb., and this striking feature was present.

It has been beneficial in parotiditis, when it was indicated by the other symptoms. It has obstruction of the nose, making respiration by the nose impossible. This condition is relieved when in the open air, but returns when in a room.

Throat.—There are stitching pains in the pharynx as if a fish bone were stuck there, when he becomes cold.

Tenacious mucus in the posterior pharynx difficult to hawk up; difficult swallowing; swallows slowly, and particles of food are apt to get into the wind-pipe.

Gastric symptoms: Feeling as if the stomach were full of water.

Many dyspeptic symptoms: flatulence. Feels as if he would burst after eating; wind upwards and downwards.

A state of anxiety felt in the stomach, often felt when the patient is frightened, as by the sudden slamming of a door.

Hypochondrium.—Burning, pinching, stitching, in hepatic region > by sitting bent forwards with elbows on knees and face in the palms of hands.

Rectum.—Much flatus; hæmorrhoids, with burning, stitching pains. Sensation as if a red-hot poker were thrust up the rectum.

Pregnancy.—Severe pains in the back during parturition without uterine contractions; the pains pass off down the buttocks and hinder labour.

Respiration.—Very great dyspnoea or asthma, waking at 2, 3, 4, or 5 a. m., and causing the patient to sit up in bed leaning forward and grasping the knees. In the attacks of asthma he must sit up, leaning forward with head on knees.

Cough.—Often waking the patient at the above times, often accompanied by the bag-like swelling between the eyelids and eyebrows, and terrible aggravations about 3 a.m..

Stitching pain in lower portion of right lung. The right lower lobe is frequently affected by Kali carb.

Heart.—Stitches about the heart through to the scapula; intermittent pulse.

Limbs.—There is a good deal of dropsy in Kali carb.; puffiness and cedema of hands and feet; jerking of the limbs on falling asleep.

Back.—Great pains in back; when walking in the street the pain is so great that he could lie down there and then to get relief; the pain extends down hips and thighs.

Nerves.—Cannot bear to be touched; starts when touched ever so slightly, especially on the soles of the feet; sudden shrieking.

Chilliness.—Very sensitive to draughts; can tell if there is a door or window open in a distant part of the house. Great < from damp weather.

Sleep.—Then again, Kali carb. is sleepless; wakes between 3 and 4 a.m. with all ailments.

Colds.—Great tendency to take colds easily.

Position.—This has already been alluded to in passing. The patient in asthma and cough and pain generally must sit up and lean forward for a certain amount of relief. With vertigo the patient can only get relief by lying down.

These, then, are a few of the more characteristic symptoms of Kali carb., culled from forty-five pages of Hering's "Guiding Symptoms," and from fifty-four pages of provings in Hahnemann's "Chronic Diseases."

This drug has many apparently conflicting and confusing symptoms; there are alternations of moods and varying humours—sometimes despondent and very tearful, and at other times cheerful.

It has many characteristic symptoms which are very pronounced. These are: the stitching, tearing, burning pains which are markedly indicative of Kali carb. There is also the marked aggravation from 2 to 4 or 5 a.m.

The patient wakes up with most terrible attacks of asthma at that time, and the asthmatic patient sits up leaning forward with head between knees.

The patient will wake at these hours with the severe, excruciating neuralgic pains. Great susceptibility to the influence of draughts.

He is also exceedingly sensitive on the soles of the feet, so that the mere touch of the sheet causes a tremor throughout the whole body which is not caused by hard pressure.—*Hom. World*, December, 1910.

REMEDIES IN PSYCHASTHENIA AND NEURASTHENIA.—With regard to indications I must ask you individually in each case to find out these from the *materia medica*, and I will conclude with a few practical points I have found of importance in practice.

Acidum Oxalicum.—I can confirm Dr. Ellis's experience as to the value of this medicine in certain forms of gastric and spinal neurasthenia. I use the 3rd or 6th centesimal dilution.

Acidum Picricum is of the greatest value in neurasthenia following influenza, especially where the feeling of exhaustion is intense and general pains are complained of in the back and limbs. I have found the 12th

and 30th dilutions of most service. In my opinion this medicine should never be given below the 6th, and seldom in that.

Acidum Phosphoricum is of much service in the sexual debility of men where emissions are frequent. I have given the 1x dilution with the greatest benefit. But sometimes in this condition acidum phosphoricum will give way to china, in the pure tincture, and it may be best sometimes to give one medicine and sometimes the other.

I can confirm Dr. Ellis's remarks as to the use of acidum phosphoricum in other states. In these latter the 6th dilution is probably the best.

As you are aware, the preparation called Sanatogen contains phosphoric acid as its active ingredient, and it may be recommended where this medicine is strongly indicated. In this connection also the work of Dr. Frank Watkins on acidity of the urine and phosphoric acid should be consulted.

Anacardium is of most service in the neurasthenia following overstudy, but states of dullness are indications for it rather than states of excitement. States of excitement call for belladonna and chamomilla chiefly. I have not had much experience with anacardium in gastric neurasthenia, but such as I have confirms that of others.

Ambergris in the 6th dilution I have found of much service in the pressive headache of women suffering from anxiety and depression.

Aurum Metallicum I ought to mention as being less useful in neurasthenia than in psychasthenia where the disposition to suicide is strong.

Ignatia is frequently regarded as predominantly a woman's medicine, but I can assure you this is quite a mistake where men patients are suffering in soul from the effects of misfortune, domestic grief or disappointment, or even from the emotional effect of having an illness come upon them. Ignatia 3 is their remedy, not continued but given whenever the emotional symptoms are inclined to predominate.

Kali Phosphoricum I have found specially valuable also in the neurasthenia following influenza. In this it compares with picric acid, but it is valuable in such states following pelvic lesions in women. In the latter condition it compares with argentum nitricum. A particular indication for kali phos. is a sensation of emptiness and sinking in the epigastrium and abdomen.

Petroleum I have found useful in gastric and abdominal neurasthenia, and the use of Angier's Petroleum Emulsion is to be recommended in these states when accompanied by emaciation or loss of weight.

With regard to the administration of medicines my usual custom is to give the remedy indicated by the whole state twice daily for a week or so at a time, and if occasion requires where a special symptom is annoying, such as headache or sleeplessness, order a single dose of another medicine to be taken at night or occasionally.

I give these points as having occurred in my experience extending now over thirty-four years of prescribing homœopathically. I do not wish to suggest the exclusion of others, or other methods of prescribing, but only to confirm or supplement the labours of colleagues who have preceded me.—Dr. G. F. Goldsborough, *September British Homeopathic Journal*.

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DIPHTHERIA TREATMENT FROM THE VIEWPOINT OF THE HOMŒOPATHIC MATERIA MEDICIST.

BY

WM. A. SEIBERT, M. D., EASTON, PA.

(Read before the New Jersey State Homœopathic Medical Society.)

OSLER's definition of diphtheria is, "A specific infectious disease, characterized by a local fibrinous exudate, usually upon a mucous membrane, and by constitutional symptoms of varying intensity. The presence of the Klebs-Löffler bacillus may be regarded as the etiological criterion by which true diphtheria may be distinguished from other forms of pseudomembranous inflammation."

What remedies will cure this dread disease "quickly, safely and pleasantly?" We answer, such drugs as may produce similar symptoms in the healthy. Referring to our repertories for the symptoms enumerated, we find nearly every remedy of our *Materia Medica* included, and therefore such combinations of symptoms are possible that almost any remedy of our *Materia Medica* might be the indicated remedy for our case, and when indicated will promptly cure the case. The "indicated remedy," however is not by any means synonymous with the simple matching up of symptoms. Number of symptoms does not outweigh their significance. Homœopathy is not a mechanical game. The elaboration of this thought would carry us very far from our present subject. We find that the symptomatology of some remedies bears a striking resemblance to the cases commonly occurring. Lilienthal, in his "Homœopathic Therapeutics," has collected, and given the indications for, more than fifty (50) such remedies, and the number and selection will vary according to the comprehension of the collator. One is par-

ticularly impressed by such similarity in the symptomatology of the Mercuries, Kali bichromicum, and a few others. But before proceeding further, what about diphtheria antitoxin?

The present day physicians may be divided into three classes in their attitude towards this wonderful discovery. Those who use it in every suspicious case; those who never would use it; and those who use it more or less. Why do I not wish to be classed with those who always use it? Because I do not believe in specific remedies for disease names. Its use thus far has been purely clinical and empirical, and as scientists we must insist that until we know its effect in detail upon the healthy prover, we are not justified in its wholesale application to the sick. We do not agree that coercion brought about by legislation, or moral suasion, because of the inaccurate, at least incomplete, statistics, presented thus far, are sufficient reasons for educated men and women to be entirely willing to play the role of puppet. If it has no effect whatever upon the healthy, as claimed by the ultra-enthusiastic, it can not possibly cure the sick, and after its ill-effects are carefully compiled, we prophesy there will be a very great defection in the ranks of those who would always use it.

Why do I not wish to be classed with those who never would use it? Because antitoxin has been a "blessing to humanity, and is a great advance on the former empirical methods of the profession." This quotation is from the lamented H. C. Allen. There is no doubt but that antitoxin, as well as vaccination for small pox, indeed the serum idea as a whole, in the prevention and treatment of disease, is touching a vital spot somewhere in therapeutics, probably homœopathy. Statistics have not been fairly and scientifically compiled, we admit, but we must also admit that such counter-statistics of injurious effects, etc., as we have seen, do not suffice for an unbigoted and unprejudiced argument. The present form and mode of application of the serum I do not believe is anywhere near to perfection, and this paper is also not written for the purpose of exploiting diphtheria antitoxin. It is however apropos to revert to a pertinent statement lately made by President Taft. He said, on May fifth, that at that date, two months after the mobilization of our troops on the Mexican border, by the use of vaccination against typhoid fever, not one case of typhoid has appeared in the entire force, except that of one teamster who was not vaccinated. Such observations, good as they are, are not necessarily conclusive, but, ladies and gentlemen, I repeat, serum therapy is touching a vital spot in therapeutics.

The other, third, class of physicians are those who use antitoxin more or less. Is it not probably true that those who know

less of homœopathy use antitoxin more, and those who know more of homœopathy use antitoxin less? When to use it, and when not to use it, is now the burning question with this class of physicians. The advice is to give it at once, or just as soon as the diagnosis is made. The claim is made by the best of authorities, that after the third day it is of no use. It seems logical, therefore, that there should be any doubt only during the first three days, and that the Homœopath, sure that his case is responding to the indicated remedy selected, has only one course to pursue for the good of his patient. The patient not responding promptly under the well selected remedy should have antitoxin, seems on the other hand to be the legitimate course to follow to-day. These are my personal views regarding its application. The personal pronoun may be pardoned, for it is not with the authority of any school that this opinion is obtruded, and it is not the purpose of this paper to plunge this society into an acrimonious debate upon a mere expression of opinion.

It is fair to add, that of the two methods, the crude one of applying antitoxin with its train of ill-effects, and the true Homœopathic method of taking the potentized Diphtherinum by the mouth, the latter appeals most to me, and I believe nearer to perfection. Let us do more work towards finally settling this mooted question properly, rather than to be outstripped by the zeal of the Allopaths.

Does the homœopathic remedy cure diphtheria? It most certainly does. The remainder of this paper shall consist of such a presentation of this subject that we trust may be a great aid in choosing the correct remedy, and convincing ourselves of the efficiency of pure Homœopathy by the cures we effect.

Upon careful comparison we find a great resemblance between the symptomatology of the various mercuries and diphtheria. True, clinically they have not satisfied the human longing for specifics, but it is not true that they have probably failed only when not properly indicated. We believe that any of the Mercuries may at times be the one indicated remedy. *Mercurius Cyanatus* does have quite a reputation in this disease and considering this fact it is singular that its symptomatology has not been perfected by careful provings. There is such a great similarity between its poisoning symptoms and malignant diphtheria, that we have chosen what we know of *Merc. cy.* for the basis of our comparisons. The logical method of study seems to be by comparisons, not made at random, but always with the same remedy, and to keep up your interest we have tabulated a comparison between *Merc. cy.* and other remedies whose symptomatology is suggestive of diphtheria.

MERCURIUS CYANATUS

REMEDY	SYMPTOM
MERC. CY.	<p>(A) Dark gray, or green thick leathery exudation and ulceration. Profuse epistaxis. Excoriating discharge.</p> <p>Blue face (cold extremities and filiform pulse).</p> <p>(A) As above. Fetor. Incessant salivation.</p> <p>Great redness of fauces with difficulty in swallowing. White opalescent coating, resembling the superficial mucous patches of syphilis, on the pillars of the velum palati and tonsils.</p> <p>(A) As above. Necrotic destruction of palate and fauces.</p> <p>Salivary glands tender without much swelling. Glands swollen. Cellular tissue infiltrated.</p> <p>Averse to all food.</p> <p>(A) As above.</p> <p>Heart weak. Pulse rapid. Filiform pulse (blue face and cold extremities).</p> <p>Cold (blue face and filiform pulse).</p> <p>Excessive prostration (with burning skin). General debility. Fainting after least change of position.</p> <p>Moist and cold. Blue face (cold extremities and filiform pulse). Burning skin (with excessive prostration).</p> <p>Adynamic fever from the start. Burning skin (with excessive prostration). Cold extremities (filiform pulse and blue face). Very free perspiration from least motion.</p>
MERC. COR.	<p>Excessive fluent coryza, acrid.</p> <p>Fetor. Taste bitter or salty. Ptyalism.</p> <p>Especially the uvula and velum palati. Intense inflammation and ulceration. Dry, dark red and greatly swollen. Painful swallowing, threatening suffocation. Intense burning < external pressure. Rapid necrotic destruction.</p> <p>Green bilious vomiting.</p> <p>Great debility.</p> <p>Intermittent pulse. Profuse perspiration on forehead</p>

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
NOSE	Pain on swallowing.	<p>MEMO:</p> <p>Putrid Diphtheria. Adynamic fever from start. Great prostration. Skin moist and cold. Profuse epistaxis. Incessant salivation. Exudation first whitish, then dark gray or green thick leathery, in nose, mouth, throat and larynx. Necrotic destruction of palate and fauces. Merc. cy. has not been regularly proved.</p> <p>DIFFERENTIAL HINTS:</p> <p>This is one of the best Homoeopathic remedies for Diphtheria. The other Mercuries generally do not seem to fit the necessary symptoms of this disease sufficiently to rank with the most usual Diphtheria remedies, unless perhaps Merc. cor., Merc. iod. flav. and Merc. iod. rub. Peculiar symptoms however may call for any of the Mercuries as for any other remedy. The differentiating feature of Merc. cy. from all the other Mercuries, as well as from all remedies, is its extreme prostration, even early in the disease.</p>
FACE		
MOUTH		
THROAT		
EXTERNAL THROAT		
STOMACH		
LARYNX		
HEART AND PULSE		
EXTREMITIES		
GENERAL SYMPTOMS		
SKIN	Excessive prostration. General debility. Fainting < motion.	<p>MEMO:</p> <p>Violent burning. Phagedenic tendency of the inflammation.</p> <p>DIF. HINTS:</p> <p>Probably more intense, rapid and destructive, but less putrid than Merc. cy. Although it has a great debility it wants the rapid prostration of Merc. cy.</p>
FEVER	Moist and cold.	
	Burning skin.	
	Perspiration < motion.	
NOSE	Burning severe.	
MOUTH		
THROAT	Intense burning < external pressure.	
STOMACH		
GENERAL SYMPTOMS	Great debility.	
FEVER		

MERCURIUS CYANATUS

REMEDY	SYMPTOM
MERC. IOD. FLA.	<p>Tongue, thick dirty yellow coat at base, with red tip and edges.</p> <p>Right side most involved, or beginning on right side. Ulcerated spots on posterior wall of pharynx. Much tenacious mucus in throat. Constant inclination to swallow.</p> <p>Glands swollen.</p>
MERC. IOD. RUB.	<p>Lips slimy and sticky on waking. Gums swollen. Ptyalism.</p> <p>Inflammation and swelling on left side. Fauces dark red. Swallowing painful.</p> <p>Glands much swollen and painful.</p> <p>Wants food well salted</p> <p>Strumous subjects.</p> <p>Heat on vertex.</p>
KALI BI.	<p>Discharge tough and stringy. Pressure and pain at root of nose.</p> <p>Dryness. Tongue smooth, red and cracked. Tongue yellow coated.</p> <p>Pain on swallowing extending to left ear. Stringy, tough mucus, sometimes blood streaked. Discharge can be drawn out in long strings. Deep-seated ulcers in fauces, with tendency to perforate. Bladder-like uvula, with very little redness. Exudation thick and yellow, like wash-leather.</p> <p>Glands swollen.</p> <p>Croupy cough.</p> <p>Pain extending to neck and shoulders.</p> <p>Fat, short-necked, light-haired persons.</p> <p>Measly-like eruption.</p>
KALI MUR. (Chloride)	<p>White or gray coating on base of tongue. Expectoration of thick white phlegm.</p> <p>Pain on swallowing. Whitish or grayish patches or spots in throat.</p> <p>Glandular swellings.</p> <p>Fatty or rich food causes indigestion.</p> <p>Loss of voice or hoarseness—even asthma.</p>

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MOUTH	< Right side. Constant inclination to swallow.	MEMO: Yellow coat on base of tongue. Throat < right side.
THROAT		DIF. HINTS: Mild cases. Salivation thick and more tenacious than Merc. cy. Wants rapid prostration of Merc. cy.
EXTERNAL THROAT		
MOUTH	< Left side. Swallowing painful. Glands painful. Strumous subjects.	MEMO: < Left side.
THROAT		DIF. HINTS: Adapted to early stage. More severe than Merc. iod. fla. but not so putrid as Merc. cy. Wants the rapid prostration of Merc. cy.
EXTERNAL THROAT		
STOMACH		
GENERAL SYMPTOMS		
FEVER		
NOSE	Pressive pain at root of nose. Dryness.	MEMO: Tenacious mucus. Ulcerations which tend to perforate. Fat, fair, chubby children.
MOUTH	Pain on swallowing extending to left ear.	DIF. HINTS:
THROAT		Exudation more tough and tenacious than in Merc. cy., where it is more soft and pasty. Rapid prostration of Merc. cy. is wanting, and manifestations of toxæmia are absent.
EXTERNAL THROAT		Ulcers are circumscribed and deep with tendency to perforate, but Merc. ulcers spread rapidly and are superficial.
LARYNX		Tendency to croup.
EXTREMITIES		
GENERAL SYMPTOMS		
SKIN	Pain extending to neck and shoulder. Fat, short-necked light-haired persons.	
MOUTH	Pain on swallowing.	MEMO Pain on swallowing. White deposits. A Schuessler clinical remedy.
THROAT		DIF. HINTS
EXTERNAL THROAT		White coating on tongue. < Fatty or rich foods.
STOMACH		Applicable later in disease. Merc. cy. is distinguished by its early and rapid prostration.
LARYNX		

MERCURIUS CYANATUS

REMEDY	SYMPTOM
KALI CHLOR. (Chlorate)	Extreme fetor. Ptyalism. Mucous surfaces red and swollen. Ulcers with gray bases Ulcers gangrenous. _____ Albuminuria. Hematuria.
KALI PERM.	Discharge thin and sanious. _____ Great fetor. Greatly swollen inside and out. Exudate extensive with tendency to slough. _____ Salivary and cervical glands swollen.
APIS	Red and swollen. Cold tip when throat begins to be sore. _____ Red, shining and puffy. Tongue swollen, sore and blistered. _____ Dryness. Puffy, fiery red throat and tonsils. Uvula swollen, sac-like. Fiery red margins around leathery membrane. Stinging pains on swallowing. _____ Absence of thirst. _____ Oedema—feels as if he could not draw another breath. _____ Great weakness. Restlessness—nervous fidgetiness. < Afternoon. _____ Very drowsy. _____ Afternoon chill, with thirst; < heat. Dry, hot skin. _____ Scanty urine.
CANTH.	Great difficulty in swallowing liquids. Great burning—throat feels on fire. Aphthous ulceration. _____ Constriction amounting almost to suffocative dyspnœa. _____ Intolerable burning and urging to urinate. Scanty urine. _____ Extreme prostration. < Drinking water.

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MOUTH AND THROAT URINE		<p>MEMO:</p> <p>Extreme fetor. Albuminuria. Hematuria. Kali chlor. is dangerous in diphtheria says T. F. Allen.</p> <p>DIF. HINTS:</p> <p>The fetor is greater in Kali chlor. Its violent nephritis differentiates Kali chlor. from Merc. cy. The rapid and early prostration differ- entiates Merc. cy. from Kali chlor.</p>
NOSE THROAT EXTERNAL THROAT		<p>MEMO:</p> <p>Extreme fetor.</p> <p>DIF. HINTS:</p> <p>The fetor is greater, the prostration less and later.</p>
NOSE MOUTH THROAT STOMACH LARYNX GENERAL SYMPTOMS SLEEP FEVER URINARY ORGANS	<p>Sore tongue.</p> <p>Stinging pains on swal- lowing.</p> <p>Suffocation.</p> <p>Great weakness. Restlessness. < Afternoon.</p> <p>Drowsy.</p> <p>Chill < heat.</p>	<p>MEMO:</p> <p>Rapid oedema inside and out. Stinging pains and soreness. Fiery redness. Drowsy. Thirstless. < heat. < afternoon (4 to 6). Prophylactic reputation.</p> <p>DIF. HINTS:</p> <p>The great oedema, fiery redness, stinging pains, thirstlessness, < heat and afternoon, scanty urine, and fiery- red margin around membrane dis- tinguish it from Merc. cy. which has more fetor, epistaxis, salivation, and necrotic destruction of palate and fauces; and the weakness, stupor and syncope of Apis is not like the pro- found collapse of Merc. cy.</p>
THROAT LARYNX URINARY ORGANS GENERAL SYMPTOMS	<p>Difficulty in swallowing Throat feels on fire.</p> <p>Constriction like suffo- cation.</p> <p>Intolerable burning and urging.</p> <p>Prostration. < Drinking water.</p>	<p>MEMO:</p> <p>Burning pains. Intolerable and constant urging to uri- nate. < Drinking water.</p> <p>DIF. HINTS:</p> <p>Intense burning and urinary symptoms differentiate Canth. from Merc. cy. Fetor, exudation and collapse more pro- nounced in Merc. cy.</p>

MERCURIUS CYANATUS

REMEDY	SYMPTOM
LACH.	Thin, excoriating discharge. _____
	Fetor. _____
	< Left side, or began there. _____
	Pain < swallowing empty or liquids. _____
	Pain < hot drinks. _____
	Inflamed parts dark purplish. _____
	Swollen externally and internally. _____
	Very sensitive to touch. _____
	Feeling of suffocation when anything touches throat. _____
	Feeble pulse. _____
CROTAL.	Patient sleeps into an aggravation. _____
	Violent prostration. _____
	More subjective suffering than objective signs warrant. _____
	Severe headache. _____
	Epistaxis; blood black and stringy. _____
NAJA	Tongue swollen. _____
	Fauces swollen and dark red. _____
	Hemorrhage from any part of body, dark fluid that forms no clots. _____
	Fauces dark red. _____
	Choking on awaking. _____
CARB. AC.	Short hoarse cough _____
	Pulse irregular and thready. _____
	Threatening paralysis of heart after Diphtheria. _____
	Putrid discharge. _____
	Dark red with white streak around mouth and nose. _____
	Fetid odor. _____
	Great accumulation of mucous exudate. _____
	Regurgitation through nose on swallowing liquids. _____
	Glands swollen. _____
	Urine almost black. _____
	Collapse. _____
	Absence of pain. _____
	Cold sweat. _____

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
NOSE MOUTH THROAT EXTERNAL THROAT LARYNX PULSE SLEEP GENERAL SYMPTOMS	< Left side. < Swallowing saliva or liquids. < Hot drinks. Very sensitive. Suffocation on being touched. All symptoms < after sleep. Violent prostration.	MEMO: Left-sided.. < After sleep. < Hot drinks. Mental and physical oversensitiveness. Constitutional symptoms out of proportion with local manifestations. Violent prostration. Climacteric ailments. DIF. HINTS: For septic Diphtheria. The membrane of Merc. cy. is dark and more extensive, and there is more destructive tendency, but the inflamed parts are darker and purplish in Lach. The tenderness is greater in Lach. The modalities differentiate Lach. Constitutional symptoms more out of proportion with local symptoms in Lach.
HEAD NOSE MOUTH THROAT GENERAL SYMPTOMS	Headache.	MEMO: Hemorrhagic diathesis. The great Yellow Fever remedy. DIF. HINTS: Low septic state like Merc. cy., but fewer local symptoms and a greater tendency to bleeding a dark non-coagulable blood from any part of body.
THROAT LARYNX HEART AND PULSE	Choking on awaking.	MEMO: The snake poisons greatly resemble one another. Naja is less septic than Lach. and Lach. less than Croc. Naja has less hemorrhage than Lach. or Croc. Naja has more nervous and Lach. more septic symptoms. Naja choking is with rawness, Lach. more by a lump. Naja exudation less than in Lach. or Croc. Valvular heart disease. DIF. HINTS: Local symptoms slight as compared with Merc. cy. Constitutional symptoms out of proportion with local symptoms.
NOSE FACE MOUTH THROAT EXTERNAL THROAT URINARY ORGANS GENERAL SYMPTOMS FEVER	Collapse. Absence of pain.	MEMO: Putridity. Little pain. Black Urine. Septicæmic symptoms. DIF. HINTS: Black urine and painlessness of Carb. ac. differentiate Carb. ac. from Merc. cy. Exudation, excessive salivation and blue face differentiates Merc. cy. from Carb. ac.

MERCURIUS CYANATUS

REMEDY	SYMPTOM
MUR. AC.	Sore and scabby condition of lips. Sordes on teeth. Aphthous ulcers. _____
	Ulcers and false membrane. _____
	Prostration excessive. So weak he slides down in bed, and jaw hangs down.
NIT. AC.	Watery, excoriating discharge. Stoppage. _____
	Fetor. _____
	Salivation. _____
	Ulcers on corner of mouth, cheeks, mouth and tonsils with sticking pains. _____
	Sharp pains as from splinter on swallowing. _____
	Exudation whitish. _____
	Swollen glands. _____
	Nausea and vomiting _____
	Intermittent pulse. _____
	Prostration. Emaciation. _____
	Urine smells like horse's urine.
SUL. AC.	Pale. Sensation of white of egg dried on face. _____
	Fetid odor. _____
	Salivation. _____
	Aphthae. _____
	Tonsils bright red and swollen. Swallowing difficult, liquids running through nose. Abundant membrane. Stringy, lemon-yellow mucus hangs from posterior nares. _____
	Great weakness, during protracted attack. Tremor without it being visible. _____
	Drowsiness. _____
	Burning, excoriating discharge. _____
	Burning rawness in throat. _____
	Loss of voice. _____
AM. CAUST.	Croup. _____
	Excessive exhaustion.

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MOUTH THROAT GENERAL SYMPTOMS	Prostration excessive.	MEMO: Great prostration so that he slides down in bed, and jaw hangs down. Tendency to involuntary stools, even bed sores. Low Typhoid symptoms. DIF. HINTS: Prostration is excessive as in Merc. cy. but Mur. ac. has many low Typhoid symptoms. The exudation of Merc. cy. differentiates it from Mur. ac. Mur. ac. is not applicable so early as Merc. cy.
NOSE MOUTH THROAT EXTERNAL THROAT STOMACH PULSE GENERAL SYMPTOMS URINE	Sticking pains in ulcers. Splinter-like pains on swallowing. Prostration.	MEMO: Offensive excoriating discharge. Splinter-like pains. Ulcers where skin and mucous membranes meet. Urine smells like horse's urine. Nit. ac. low decomposes sugar and forms Oxal. ac. DIF. HINTS: Nasal Diphtheria particularly. Splinter-like pains in ulcers. Urine smells like horse's urine. The exudation and early prostration differentiates Merc. cy. from Nit. ac.
FACE MOUTH THROAT GENERAL SYMPTOMS SLEEP	Sensation white egg dried on face. Swallowing difficult. Great weakness. Tremor not visible.	MEMO: Great weakness. Relaxed feeling in stomach. Craving for stimulants. Sour-smelling patients. Tendency to hemorrhage. DIF. HINTS: Bad cases. Great weakness but later in attack than for Merc. cy. Feels tremor without it being visible. The exudation of Merc. cy. differentiates it from Sul. ac.
NOSE THROAT LARYNX GENERAL SYMPTOMS	Burning discharge. Burning rawness. Excessive exhaustion.	MEMO: Burning rawness in throat. Croup. DIF. HINTS: Laryngeal Diphtheria. Burning rawness. The putridity and exudation differentiates Merc. cy. from Am. caust.

MERCURIUS CYANATUS

REMEDY	SYMPTOM
BROM.	<p>Obstinate excoriating coryza. _____</p> <p>Glands enlarged and hard. _____</p> <p>Scraping and rawness in larynx. Hoarse, croupy cough. Whistling breathing at first, later rattling in larynx. Suffocative attack. Membrane begins in larynx and spreads upward. _____</p> <p>Caused by being overheated.</p>
	<p>Salivation. _____</p> <p>Glands enlarged and hard. _____</p> <p>Ravenous hunger. _____</p> <p>Great hoarseness. Croupy cough. Difficult inspiration, Child grasps its throat. _____</p> <p>Palpitation. _____</p> <p>Emaciation. Debility. Torpidity. < Heat.</p>

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
NOSE EXTERNAL THROAT LARYNX GENERAL SYMPTOMS	Scraping and rawness in larynx. Caused by being over- heated.	MEMO: Its preference for larynx and trachea. Blonde type and scrofulous. DIF. HINTS: Brom. is adapted to Croupoid Diph- theria. Merc. cy. is differentiated by its mem- brane, its necrotic tendency, and pu- tridity. Merc. cy. prostration is earlier than in Brom. Chilliness predominates in Brom. rather than fever as in the Mercuries.
MOUTH EXTERNAL THROAT STOMACH LARYNX HEART GENERAL SYMPTOMS	Debility. < Heat.	MEMO: Ravenous hunger. Great emaciation. Enlarged glands. Brunette type and scrofulous. Brom. for blondes, glands not so hard, less constriction and more fever than Iod. DIF. HINTS: Laryngeal Diphtheria—early stage. The hoarse and croupy cough, hunger and emaciation differentiate Iod. from Merc. cy. The aversion for food, nature of exu- dation and peculiar prostration dif- ferentiates Merc. cy.

MERCURIUS CYANATUS

REMEDY	SYMPTOM
BELL	Wild delirium. Convulsions. _____
	Hot. Throbbing headache. _____
	Red and pupils dilated. _____
	Red, hot and swollen. _____
	Tongue bright, red and dry—"strawberry tongue." _____
	Burning, dry, red and swollen — < right side. Sense of constriction, making swallowing difficult. _____
	Throbbing carotids. Glands hard. _____
	Hoarse. Dry, tickling, spasmodic cough. _____
	Hard and bounding pulse. _____
	Cold feet. _____
	Pains come and go suddenly. Dryness of all mucous membranes. _____
	Scarlet red—smooth and shining. _____
	Jumps in sleep as if might go into spasms. Sleepy, but cannot sleep. _____
	High fever. _____
AIL.	Torpor and stupor. _____
	Ichorous discharge. _____
	Livid appearance. Grayish exudation. Deep, angry looking ulcers on tonsils. _____
	Great swelling internal and external. _____
	Great weakness. _____
	Vivid or purplish. _____

DIPHtheria COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MIND	<p>Throbbing headache</p> <p>< Right side. Sense of constriction.</p> <p>Tickling cough.</p> <p>Pains come and go suddenly.</p>	<p>MEMO:</p> <p>Pains come and go suddenly. Heat, redness throbbing, burning, dryness and swelling. < right side. Delirium, red face and eyes and dilated pupils. Plethoric constitution. Scarlatina symptoms and prophylactic.</p> <p>DIF. HINTS:</p> <p>Good only early in Diphtheria, when attack is sudden and violent. Does not have the pathognomonic symptoms of diphtheria after diagnosis is established. Merc. cy. is easily differentiated from Bell. by its exudation, salivation, weak pulse, prostration, adynamic fever, and blood-poisoning symptoms in general.</p>
HEAD		
EYES		
FACE		
MOUTH		
THROAT		
EXTERNAL THROAT		
LARYNX		
PULSE		
EXTREMITIES		
GENERAL SYMPTOMS		
SKIN		
SLEEP		
FEVER		
MIND.	<p>Great weakness.</p>	<p>MEMO:</p> <p>Its symptoms are very similar to most Malignant Scarlatina.</p> <p>DIF. HINTS:</p> <p>A septic Scarlatina is very much like Diphtheria until its pathognomonic symptoms are demonstrated. Ail. has more stupor than Merc. cy. Merc. cy. has putridity, salivation, and an exudation to differentiate it from Ail.</p>
NOSE		
THROAT		
EXTERNAL THROAT		
GENERAL SYMPTOMS		
SKIN		

MERCURIUS CYANATUS

REMEDY	SYMPTOM
ARUM	Acrid, excoriating discharge. Nose obstructed. Boring in nose until it bleeds.
	Picks at lips until they are sore. Corners of mouth sore. Breath fetid.
	Burning in throat.
	Glands of neck swollen and painful
	Hoarseness and pain.
	Weak, restless, irritable
	Scarlet rash
BAPT.	Semi-comatose and low delirium
	Dark-red, "besotted" look.
	Horribly offensive odor.
	Painless sore throat. Can swallow only liquids, solids cause gagging. Fauces dark red. Membrane and ulcers dark and gangrenous.
	Glands swollen.
	Back, limbs and head ache.
	Restlessness. Great prostration. Very fetid exhalations and discharges generally.
	Restless sleep. Feels scattered around bed and is trying to get pieces together.
RHUS TOX.	Mild delirium. Apprehensive, anxious, afraid. Restless.
	Bloody saliva runs from mouth in sleep. Tongue coated, except red triangular space at tip. Tongue dry or cracked.
	Sticking pains on swallowing.
	Glands swollen and hard.
	Stiffness and soreness — < during rest and wet weather, > during motion.
	Restlessness > motion. Prostration.
	Intense itching. Vesicles. Blisters.
	Sleeplessness.

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
NOSE	Burning discharge.	MEMO: Acrid discharge. Burning pains. Picking at nose, lips and raw bleeding surfaces. DIF. HINTS: This is another Malignant Scarlatina remedy rather than for Diphtheria, but Arum may be the remedy. The picking at nose and lips, and the restlessness and irritability with its prostration differentiate it from Merc. cy. Merc. cy. has a distinguishing exudation.
MOUTH	Burning in mouth.	
THROAT	Burning in throat.	
EXTERNAL THROAT	Glands painful.	
LARYNX	Pain in larynx.	
GENERAL SYMPTOMS	Weak, restless, irritable	
SKIN		
MIND		MEMO Very fetid discharges. Painless sore throat. Great muscular soreness. Besotted look—dusky face and low delirium. Feels scattered about bed in pieces. Typhoid state. DIF. HINTS: Bapt. applies to Malignant Diphtheria in a Typhoid state. Bapt. is differentiated from Merc. cy. by these Typhoid symptoms, its painless sore throat, greater restlessness, and more soreness throughout. Merc. cy. discharges are more excoriating, its salivation greater, and its prostration rather like collapse than the Bapt. Typhoid prostration.
FACE		
MOUTH		
THROAT	Painless sore throat. Solids cause gagging.	
EXTERNAL THROAT		
EXTREMITIES	Soreness.	
GENERAL SYMPTOMS	Restlessness. Great prostration.	
SLEEP	Feels scattered around bed	
MIND		
MOUTH		
THROAT	Sticking pains on swallowing	MEMO: Modalities— > motion, < rest. < cold, damp weather. Restlessness. Soreness. Triangular red tip on tongue. DIF. HINTS: Rhus is another remedy for Diphtheria with Typhoid symptoms. Triangular red tip on tongue, its modalities, and great restlessness with its prostration differentiates Rhus from Merc. cy. The adynamic fever, pruridity, nature of exudation, and excessive early prostration distinguishes Merc. cy. from Rhus.
EXTERNAL THROAT		
EXTREMITIES	Soreness < rest and wet weather. > Motion.	
GENERAL SYMPTOMS	Restlessness > motion. Prostration.	
SKIN	Itching.	
SLEEP		

MERCURIUS CYANATUS

REMEDY	SYMPTOM
ARS. ALB.	Fear, anxiety, restlessness.
	Fluent watery coryza—acid.
	Pale and puffy—cachectic—cadaveric.
	Fetid breath.
	Tongue burning, dry and red.
	Painful deglutition.
	Membrane dark, dry and wrinkled.
	Much swelling inside and out.
	Oedema.
	Thirst for little and often.
	Nausea and vomiting.
	Rapid and weak.
	Paralysis lower extremities.
	Profound prostration.
	Great restlessness mentally, but too weak to move.
LYC.	Pains all burning.
	All symptoms > heat; < after midnight.
	Scanty. Albuminuria.
	Adynamic fever
	Scanty ichorous discharge begins on right side.
	Stoppage.
	Fan-like motion alae nasi.
	Mouth open, and swollen tongue protrudes
	Pain and exudate begins on right side.
	Tonsils swollen.
LYC.	Excessive accumulation of flatus.
	Very hungry but eating ever so little causes fullness.
	Cold drinks < .
	Red sand in urine.
	< 4 to 8 p. m.
	< right side.
	Wakens cross or frightened.

DIPHThERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MIND	Fear, anxiety, restlessness. Burning dry tongue. Painful deglutition. Prostration. Pains burning. > Heat; < after midnight.	MEMO : Restlessness. Prostration. Burning throughout. Thirst for small quantities and often. Modalities: > heat. < after midnight. Periodicity. DIF. HINTS : Ars. applies to Malignant Diphtheria, especially in later stages with septic symptoms. Peculiar thirst, restlessness, burning pains, and thinner coryza differentiate it from Merc. cy. The exudation and early collapse distinguish Merc. cy. from Ars.
NOSE		
FACE		
MOUTH		
THROAT		
EXTERNAL THROAT		
STOMACH		
PULSE		
EXTREMITIES		
GENERAL SYMPTOMS		
URINE		
FEVER		
NOSE	< Right side. Flatulency. Fullness after eating little. Cold drinks <. < 4 to 8 p. m. < Right side.	MEMO : Flatulency. < 4 to 8 p. m. < Right side, or complaints go from right to left. < Cold. Uric acid sediment in urine. DIF. HINTS : Lyc. is rarely indicated in Diphtheria and then for Nasal Diphtheria mostly. The stoppage of nose, right-sided aggravation as well as < 4 to 8 p. m and < cold drinks, differentiates it from Merc. cy. The nature of exudation and the early prostration distinguishes Merc. cy. from Lyc.
MOUTH		
THROAT		
STOMACH		
URINE		
GENERAL SYMPTOMS		
SLEEP		

MERCURIUS CYANATUS

REMEDY	SYMPTOM
CAPS.	<p>Stomatitis even to gangrene. Relaxed uvula. Excessive burning and smarting, as from red pepper. Sensation of constriction. < Between acts of deglutition. Inflammation with tendency to gangrene.</p> <hr/> <p>Fetid odor. Much thirst; but drinking causes shuddering.</p> <hr/> <p>Prostration.</p> <hr/> <p>Red without fever of often.</p> <hr/> <p>Chilliness < drinking water. Chills begin between shoulder blades.</p>
PHYT.	<p>Fetid breath. Great pain at root of tongue when swallowing.</p> <hr/> <p>Highly inflamed, dark-red purple look. Swollen, dry, sore. Great burning, as from a coal of fire. < Hot drinks. Deglutition painful, shooting to ears. Dark-colored membrane.</p> <hr/> <p>Glands swollen.</p> <hr/> <p>Pain in head, back and limbs. General aching.</p> <hr/> <p>Great prostration, feeling faint when sitting up.</p> <hr/> <p>High fever.</p>
SANG.	<p>Fluent acrid coryza, < right side.</p> <hr/> <p>Burning as if scalded. Swollen, < right side. Pearly coating on palate and fauces.</p>

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MOUTH		MEMO:
THROAT	Excessive burning as from red pepper. Sensation of constriction. < Between acts of deglutition.	Sensation of burning or smarting. Sensation of constriction. Chilliness < drinking water. Suited to fat, weak, and indolent people. Lack of reaction.
STOMACH	< Drinking water.	DIF. HINTS:
GENERAL SYMPTOMS	Prostration.	Caps is adapted to severe type of Diphtheria. Its peculiar burning, and chilliness < drinking water, distinguish it from Merc. cy.
SKIN		The characteristic membrane and early collapse differentiates Merc. cy. from Caps.
FEVER	< Drinking water.	
MOUTH	Pain at root of tongue when swallowing.	MEMO:
THROAT	Dry and sore. Burning as from a coal of fire. < Hot drinks. Deglutition painful, shooting to ears.	Aching all over body. Mastitis.
EXTERNAL THROAT	—	DIF. HINTS:
EXTREMITIES	Pain in head, back and limbs. General aching.	Phyt. prostration is not as profound a collapse as in Merc. cy. with blue face and cold extremities. Its ulceration is not as destructive in nature.
GENERAL SYMPTOMS	Prostration, feeling faint on sitting up.	It has more general aching and a great burning in throat not found in Merc. cy., and it probably has higher fever.
FEVER		
NOSE	Acrid coryza < right side.	MEMO:
THROAT	Burning as if scalded.	Burning. < Right side. Headache locating over right eye. Dry, teasing, hacking cough. Vaso-motor disturbances: Circumscribed red cheeks, Hot flushes, Hot soles and palms, etc.
		DIF. HINTS:
		The great burning and right-sided aggravation differentiates Sang. from Merc. cy. Merc. cy. is differentiated by its exudation, incessant salivation, and early prostration.

MERCURIUS CYANATUS

REMEDY	SYMPTOM
KREO.	Fowl and acrid discharge—bleed easily.

SUL.	A most putrid odor

	Vomiting.

LAC CAN.	Acrid coryza.
	Alae nasi red.

	Salivation.
	Fetor.
	Lips bright red.

	Swallowing painful, liquids run out of nose.
	Dry, burning and purplish red.
	Large yellow deposits all around posterior pharynx.

	Very weak and faint at 11 a. m.
	Very thirsty.
	Nausea and vomiting.

	Burning in soles and hands at night

	Frequent sinking spells.

	"Cat-nap" sleep.

	Flashes of heat.

	Excoriating discharge.
	Stoppage alternately with discharge.

	Profuse saliva.

	Swallowing painful—fluids return by nose.
	Symptoms change repeatedly from side to side
	Shining, glazed deposit—mother-of-pearl like.
	Exudation yellowish-gray, curdy, and looks as if loose on white
	ulcers.
	Swollen inside and out.

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY, CONDITION	MEMORANDA DIFFERENTIAL HINTS
EYES		MEMO: Foul and acrid secretions and excretions. General tendency to hemorrhage. Dentition—especially when teeth decay soon as they appear. Climaxis—especially when flow on lying down. DIF. HINTS: A general tendency to hemorrhage, and a most foul and acrid discharge distinguishes Kreo. from Merc. cy. The exudation, salivation, and early prostration differentiates Merc. cy from Kreo.
NOSE		
MOUTH		
THROAT		
STOMACH		
NOSE		MEMO: The great Hahnemannian anti-psoric. Burning always and anywhere—top of head, palms of hands, soles of feet. All fluids acrid and smarting. Thirsty and drinks much. All-gone hungry, < 11 a. m., but eats little. Red orifices. Skin burns and itches, < warmth. "Cat-nap" sleep. Lean, stoop-shouldered, dirty. ☞☞ When well-selected remedies fail to act. DIF. HINTS: Sul. has more burning and redder orifices than Merc. cy., and its weakness and faintness is not profound as the collapse of Merc. cy. Its many characteristics should differentiate it easily. The nature of exudation, great fetor, and its adynamic fever from the start distinguish Merc. cy. from Sul.
MOUTH		
THROAT	Painful swallowing. Dry and burning.	
STOMACH	Very weak and faint at 11 a. m.	
EXTREMITIES	Burning in soles and palms at night.	
GENERAL SYMPTOMS	Frequent sinking spells.	
SLEEP	—	
FEVER	Flashes of heat.	
NOSE		MEMO: Erratic pains, alternating sides. Repeat dose once in 24 hours. DIF. HINTS: Begins in larynx and spreads upward. The appearance of exudation differentiate it from Merc. cy. The fetor and rapid prostration differentiates Merc. cy. from Lac. can.
MOUTH		
THROAT	Swallowing painful. Symptoms change sides repeatedly.	

MERCURIUS CYANATUS

REMEDY	SYMPTOM
DIPH.	Semi-stupid. _____
	Dull, besotted. _____
	Offensive discharge. _____
	Epistaxis. _____
	Fetor. _____
	Tongue red and swollen. _____
	Fetor. _____
	Swallows without pain, but fluids are vomited or returned through nose. _____
	Dark red swelling of tonsils and palatine arches. _____
	Membrane thick and dark. _____
	Glands enlarged and painful _____
	Laryngeal diphtheria. _____
	Weak and rapid. _____
	Great prostration from start. _____
	Scrofulous subjects who suffer catarrhal affections. _____
	Post-diphtheritic paralysis threatens. _____
	Temperature low or subnormal. _____

DIPHTHERIA COMPARISONS

RUBRIC	SENSATION MODALITY CONDITION	MEMORANDA DIFFERENTIAL HINTS
MIND		MEMO:
EYES		If opposed to antitoxin.
NOSE		When the most carefully selected remedies fail.
		Do not repeat too frequently.
MOUTH		DIF. HINTS:
		A clinical remedy for Malignant Diphtheria.
THROAT	Swallows without pain	Very similar to Merc. cy. but has painless swallowing, and fluids are vomited or returned through nose.
EXTERNAL THROAT	Glands painful.	The incessant salivation of Merc. cy. seems wanting.
LARYNX		
PULSE		
GENERAL SYMPTOMS	Great prostration from start.	
	Scrofulous subjects who suffer catarrhal affection.	
FEVER		

A PRACTICAL AND SUCCESSFUL METHOD OF TREATING PULMONARY TUBERCULOSIS BY TUBERCULIN.

BY G. HARLAN WELLS, M. D., PHILADELPHIA, PA.

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(Read before the American Institute of Homoeopathy.)

THE search for a cure for tuberculosis has been one of the world old problems of the human race. It attracted the earnest attention of Hippocrates, Pliny and Paracelsus, and even centuries before their day, man, in his primitive and ignorant state, was compelled to exercise his utmost cunning to ward off the ravages of this universal scourge.

Innumerable specifics have been proposed for the cure of this disease. A review of them affords an interesting if not a very encouraging insight into the vagaries of medical treatment. Suffice it to say that the majority of them have proven harmful or useless, while a few have stood the test of time and of experience and constitute the effective measures at our command to-day in the treatment of tuberculosis.

HISTORY OF TUBERCULIN.

The first systematic attempt to employ the products of the tubercle bacillus for therapeutic purposes was made in 1874, when Dr. Swan, a homœopathic practitioner of New York, triturated the sputum of a tuberculous patient with sugar of milk. This substance he termed "tuberculinum." A few years later, Dr. Burnett, a homœopathic practitioner of London, triturated a portion of a tubercle removed from the lungs of an infected individual with sugar of milk. The remedy thus prepared he called "Bacillinum." Both of these substances contained the intracellular and extracellular toxins of the tubercle bacillus, together with other pathogenic bacteria and products of tissue disintegration.

In 1891, Koch announced the discovery of his "old" tuberculin, which was hailed by him and by the scientific world in general as the long sought for specific for tuberculosis in all its forms. Then occurred what usually happens under such circumstances; the new specific was used by doctors who had no experience with it whatever in all sorts of cases and in large

doses. When we look back upon this era of tuberculin therapy we wonder not that disastrous results followed in many cases, but rather that the results were not worse than actually occurred. The pendulum now swung in the other direction, and clinicians who had recklessly administered this powerful substance without rhyme or reason now began to vigorously condemn it, and this, combined with the sweeping denunciation of tuberculin treatment by Virchow and his school of post-mortem pathologists, brought about a rapid and disappointing ending to the first era of tuberculin therapy.

Despite the dissatisfaction prevailing among those who had used tuberculin recklessly, there were a number of investigators who, while they recognized that the remedy was not suited to all cases, realized that it had produced remarkably beneficial results in a certain group of cases. These men continued to experiment carefully with tuberculin long after it had been given up by the medical profession in general, and about 1901, through the work of Carl Spengler, Goetsch and Trudeau, the mild method of administering tuberculin was perfected.

In the light of present experience it is conceded by all that the bad results following the administration of tuberculin according to Koch's original method can be traced to two reasons: first, the dosage was too large and too frequently repeated; second, tuberculin was given to practically all cases of tuberculosis irrespective of the type of the disease or the condition of the patient. None of these objections can be held against the modern reactionless method of using tuberculin, which insures all the beneficial results of this agent without its harmful effects.

EXPERIMENTAL BASIS OF TUBERCULIN THERAPY.

Time does not permit us to go into a review of all the experimental work that has been carried out in an endeavor to determine the exact action of tuberculin in tuberculous individuals. The experiments of Koch, Spengler, Calmette, Denys and numerous other investigators have conclusively shown that the injection of tuberculin is followed by the following definite effects:

First, it produces a specific hyperemia at the seat of the lesion which has a distinct therapeutic value by stimulating resistance and the formation of antibodies.

Second, it causes the formation of specific agglutinins, opsonins, etc.

Third, it establishes a toxic tolerance which is also a real toxic immunity.

CLINICAL EVIDENCES OF THE VALUE OF TUBERCULIN THERAPY.

A few years ago Pottenger wrote to more than three hundred clinicians in various parts of the world for the purpose of obtaining from them statistics of the results obtained from the treatment of tuberculous cases by tuberculin. He was able in this manner to get reports on about 5,700 cases in which this agent had been applied with satisfactory results to those who administered it.

On chart "A" will be seen a list of 551 cases in the first stage of tuberculosis treated by various clinicians with an average percentage of cures of 92 per cent. On the same chart will be seen a list of 611 cases treated without the use of tuberculin with an average percentage of cures of 62.4 per cent. In other words, there were approximately 30 per cent. more cures in the cases in which tuberculin was used.

(Chart A)

COMPARATIVE STATISTICS OF FIRST STAGE CASES.

Cases Treated without Tuberculin.

	Number.	Cured.
Bowditch	66	59 %
Clapp	82	64.6
Trudeau	300	68
Stubbert	163	58
Total	611	Average..62.4%

Cases Treated with Tuberculin.

	Number.	Cured.
Jessen	14	100%
Goetsch	356	78
Von Ruck	105	83
Rembold	16	75
Turban	20	100

Wilkinson	12	100
Petrusky	18	100
Pottenger	10	100
<hr/>		
Total	551	Average..92%

Probably the most exact statistics from American sources that we have are those of Trudeau, of Saranac Lake. On chart "B" we have a record of 1,049 cases treated by Trudeau, 864 with tuberculin and 185 without tuberculin. The same general hygienic care was used in both groups of cases. A study of this chart shows that in the incipient cases the percentage of cures under both methods was practically the same, with a slight advantage in favor of the tuberculin treated cases. In the moderately advanced cases, however, it will be seen that the percentage of cases cured or arrested was much higher when tuberculin was used. A large number of these cases were followed for several years after discharge, and it was found that the percentage of relapses in the tuberculin treated cases was much lower than in the cases cured or arrested by general hygienic treatment only.

(Chart B)

STATISTICS OF SANATORIUM CASES (Trudeau).

1049 Cases } 864 Treated With Tuberculin.
(All had Bacilli in Sputum) } 185 Treated Without Tuberculin.

Incipient Cases.

	With	Without
Apparently Cured	56%	50%
Arrested	34	38
Active	10	12

Moderately Advanced Cases.

	With	Without
Apparently Cured	27%	6%
Arrested	55	51
Active	18	43

Most of the statistics above referred to have been taken from cases treated in sanatoriums. On Chart "C" we have a record of 579 cases treated in dispensary and office practice.

(Chart C)

STATISTICS OF DISPENSARY AND OFFICE CASES.

Five Hundred and Seventy-nine Cases—All Treated with Tuberculin.

	Cured	Arrested	Improved	Unimproved
Hamman's Series	17.5%	28 %	20 %	33.5%
Miller's "	22.8	28.6	23.6	25
Denys' "	56			
Author's "	40	33.3	16.7	10

The results obtained in the cases thus treated are very satisfactory and compare quite favorably with the cases receiving sanatorium treatment.

Professor Moeller, of the Belzig Sanatorium, near Berlin, six years ago was an utter sceptic as to the value of tuberculin therapy, but is now one of its most earnest advocates. He reports the following results after several years of careful comparative study of its value:

Stage I:

Sanatorium methods alone cured 31.8 per cent.
 Sanatorium methods plus tuberculin cured 75 per cent.

Stage II:

Sanatorium methods alone cured 1.9 per cent.
 Sanatorium methods plus tuberculin cured 20 per cent.

According to later reports from the same authority sanatorium methods alone may cure *twenty-five per cent.* in the first stage, while tuberculin in his hands has cured *eighty-four per cent.*

Wilkinson, the eminent English authority on tuberculin, reports that an examination of the cases that have come under his observation, show that *ninety per cent.* of the first stage cases and *sixty per cent.* of the second stage cases were cured by tuberculin therapy, and remained so five years after discharge. He further states that "tuberculin constitutes the chief and most powerful weapon we possess in dealing with the stupendous problem of the cure and prevention of tuberculosis in all its forms." As a result of his remarkable results several of the English municipalities have established "tuberculin dispensaries" in preference to "tuberculosis dispensaries" as being a

more practical and more economical method of handling the tuberculosis problem among the poor.

A history of a few specific cases that have come under my personal observation may serve to indicate some typical results from the use of tuberculin.

Case 1. Miss M. Age 28. Came under my observation in September, 1910. Several of her family suffered from tuberculosis, and for the past year she had been losing weight. Complained of considerable weakness and had a slight cough. Physical examination showed incipient pulmonary tuberculosis of the right upper lobe. The sputum was free from bacilli. Pulse 80 and the maximum daily temperature was 100° F. Weight, 121 lbs. Patient was put to bed on an open porch, and the ordinary hygienic measures used in these cases were instituted. Under this treatment the patient gained in weight, but otherwise did not improve. Her maximum daily temperature continued about 99.8° while at rest, and as soon as efforts were made to get her out of bed it would run up to over 100°. After two and a half months of careful treatment, without any reduction in the temperature, I decided to employ tuberculin, and on November 14th, started the treatment with an injection of .1 c.c. of the 5x dilution. After two months of this treatment the temperature became normal all day, and the patient was gotten up and gradually allowed to resume her household duties. At the present time she has been free from all symptoms for five months. Her temperature is perfectly normal, she is attending to her household work as usual, and has gained 24 lbs. in weight.

I desire to call your attention in this case to the fact that the temperature and general weakness seemed to resist all the ordinary hygienic measures but yielded promptly to the tuberculin treatment.

Case 2. Mr. J. Age 45. Complained of considerable trouble with his stomach. Appetite was good, but had a great deal of pain after eating and occasional vomiting. He had a slight cough which he stated he had noticed for a number of years. Physical examination on September 17th, 1909, showed a tuberculous lesion involving both apices; pulse 80, maximum daily temperature 99.6°, sputum loaded with tubercle bacilli. Patient stated that it was impossible for him to give up his occupation, which was of a clerical nature, and I endeavored to carry on the treatment without him modifying his habits to any

great extent. His weight at this time was 137 lbs. I began with the fifth decimal dilution of Koch's "old" tuberculin, and at the end of three months the bacilli had entirely disappeared from the sputum. The cough persisted, but was considerably ameliorated. After eight months of treatment the patient was very much improved in every respect; weight 156 lbs., cough very slight, sputum free from bacilli. At that time he discontinued the treatment and has been working hard ever since. I saw him a few days ago and he told me that his health remained good.

Case 3. Mr. S. Age 35. History of tuberculosis in two of the family. Three months before coming under my care he began to feel weak, debilitated, had a cough and severe pain in the left side of his chest; considerable hoarseness and shortness of breath; temperature 98°, pulse 92, weight 120 lbs. Physical signs were few, but numerous tubercle bacilli were found in the sputum. Started the treatment with injections of tuberculin, the 6x dilution. After three months treatment the patient had gained 15 lbs. in weight, bacilli had disappeared from the sputum, and he was much improved in every respect. I continued the treatment for several months, and he then returned to his business, in which he has been engaged ever since. I discharged him from my care about two years ago. This patient was sicker than the mere facts of the history would seem to indicate, and owing to lack of means to provide for proper nourishment and rest, the outlook of the case was very poor. I consider his recovery under the circumstances as a remarkable instance of the value of tuberculin in cases of this type.

Case 4. Mr. M. Age 25. Came under my care in 1908, suffering from an incipient case of pulmonary tuberculosis. After three months of treatment, his symptoms, which were very mild, entirely cleared up under medicines and general hygienic care. The patient continued fairly well for several months, but then gradually began to grow weak and finally consulted me again. When I examined him at his home I found his pulse 120, temperature 102°, decided loss of weight, and physical signs of tuberculous involvement of the upper portion of the right lung. With rest in bed and general care we were able to get his temperature down to a maximum of 100° within a few weeks. I then began the tuberculin treatment, and his progress towards recovery was rapid and satisfactory. Four months after the injections were started the temperature was

entirely normal even though he was engaged in active work; pulse was 92, appetite good, and he had gained about 20 lbs. in weight.

In concluding this aspect of the subject, from my own experience, as well as from the experience of clinicians all over the world, I feel that I am justified in stating that clinical evidence has demonstrated:

First, that in tuberculin we have an agent that is capable of curing or arresting from 80 to 90 *per cent.* of all cases of incipient pulmonary tuberculosis when favorable hygienic conditions can be obtained.

Second, that many cases of incipient or moderately advanced tuberculosis that have reached a point where no further progress is possible under hygienic treatment are oft-times stimulated to throw off the infection and go on to a complete recovery under tuberculin treatment.

Third, that when properly given in advanced cases it increases the resistance to the disease and diminishes the probability of complications.

Fourth, that cases of pulmonary tuberculosis that have been apparently cured or arrested by the administration of tuberculin are much less likely to suffer from a relapse than cases treated without the use of tuberculin.

Fifth, that children who have acquired a mild form of tuberculosis from contact with other members of the family may be made more resistant to the disease and probably avoid further development of it by a course of tuberculin treatment.

Having briefly considered the clinical results of tuberculin therapy we are now in a position to intelligently consider the type of cases and the manner in which it can be successfully employed.

SELECTION OF CASES.

The selection of the cases in which tuberculin will probably prove helpful is in my opinion the most difficult problem connected with the entire subject of tuberculin therapy. The most essential step in deciding this question is a thorough and accurate diagnosis of the condition of the patient both as regards the condition of the lung itself and of the entire organism. It is not sufficient for this purpose that we simply recognize that the patient has tuberculosis. We must know the exact extent of the lesion in the lung, whether it is rapidly progressive or not,

whether we have to deal with a case of mixed infection, and whether there exists, as a complication, tuberculosis of other tissues or organs. We must also know whether the condition of the organism as a whole is such as will render the formation of immunizing substance possible or probable. Unless this thorough and careful examination of the patient has been made the physician is not justified in advising the use of tuberculin in the case; and if he does so, sooner or later he will meet with results that will be not only disappointing but positively harmful.

There are two reasons why a thorough and accurate understanding of the patient's condition both local and general are necessary for the successful application of the tuberculin therapy:

First. Because tuberculin is exquisitely homœopathic to tuberculosis; it is an effective remedy for *tuberculosis* only. It is not an effective remedy for *consumption*.

Second. The object of tuberculin treatment is to produce an active immunity; that is, to stimulate the cells of the body to form opsonins, agglutinins and other immunizing substances, which process can only be successfully carried out when the functions of the various cells and tissues of the body are not seriously impaired.

INDICATIONS FOR TUBERCULIN.

Broadly speaking, our tuberculous cases may be divided into two types: first, those cases having an infection by the tubercle bacillus alone; second, those cases in which we have infection by the tubercle bacillus plus infection by some other micro-organism, more commonly the streptococcus or the staphylococcus. Clinically, we distinguish the case of pure tubercle infection by the low range of temperature (seldom exceeding 100.5°) and the mild nature of the constitutional symptoms. Until recent years it was taught that the symptoms of tuberculosis were chills, fever, night sweats, marked emaciation, cough with the expectoration of cheesy masses, etc. We now recognize the fact that these are not the symptoms of tuberculosis at all. They are, in the main, symptoms dependent upon the presence of pus-producing organisms, the streptococcus and the staphylococcus.

The symptoms of those cases in which tubercle bacillus alone is present, are mild and frequently almost imperceptible to the

patient and physician. Some digestive disturbance is one of the first symptoms to appear in the majority of cases. This usually takes the form of a loss of appetite, together with some discomfort after eating, accompanied perhaps by occasional spells of vomiting. There is usually at this time a slight loss of weight rarely exceeding four or five pounds. Another quite constant feature is a sensation of fatigue or lassitude appearing particularly in the afternoon, and the patient may or may not observe that at this time he becomes warm or slightly flushed. A careful record of the temperature will show usually a slight rise varying from 99.5° to 100.5° at this time. Cough may or may not be present. When it is present it is usually of catarrhal nature, and an examination of the throat will frequently reveal a catarrhal pharyngitis. Physicians are frequently misled by this into the belief that the catarrhal pharyngitis is the primary and sole condition present, whereas, as a matter of fact it is simply a secondary condition due to malnutrition of the mucous membrane of the throat.

Such in brief are the conditions present in a case of pure tubercle infection, and *it is this complex of symptoms that furnishes us with the indications for the successful administration of tuberculin.* One of the most serious complications that can occur in such a case, and the one which frequently does happen, is for the tuberculous tissue to become infected by pus-producing organisms. We then have developed that familiar symptom complex commonly known as "consumption," and formerly regarded as diagnostic of tuberculosis, namely, night sweats, chills, temperature ranging from 100° to 103° , cough with the expectoration of blood and cheesy masses, marked loss of appetite, emaciation, etc. *This group of symptoms constitute the contra-indications for the use of tuberculin,* as it has been conclusively shown that tuberculin exercises no beneficial effect upon the group of symptoms produced by the streptococcus and staphylococcus.

To briefly summarize, the indications for the administration of tuberculin are, incipient cases of tuberculosis in which the maximum daily temperature does not exceed 100° , and in which the general state of nutrition is fairly good; chronic fibroid cases in which the maximum daily temperature does not exceed 100° , and which have reached a point where no further progress can be obtained by hygienic and dietetic treatment; as

a prophylactic in children of tuberculous families who show suspicious signs of incipient tuberculosis.

CONTRAINDICATIONS FOR TUBERCULIN.

First, all cases of pulmonary tuberculosis in which the maximum temperature, with the patient at rest, exceeds 100°.

Second, cardiac weakness dependent upon degenerative processes of the heart muscle and coronary arteries.

Third, marked debility and malnutrition.

Fourth, hemorrhage dependent upon ulcerative changes in the lung.

VARIETIES OF TUBERCULIN.

Having selected the case that is suitable for tuberculin treatment, we are next confronted with the question as to what form of tuberculin to use. Generally speaking, there are two types of tuberculin: first, those which contain the toxic products formed by the growth of the tubercle bacillus on various culture mediums, and second, those which contain the insoluble poisons found in the body of the bacillus itself. Koch's "old" tuberculin and Deny's bouillon filtrate are the typical examples of the first class of tuberculins, and the "bacillin emulsion" and "new" tuberculin are typical examples of the latter class. I shall not go into a discussion of the theoretical merits of these various forms, but will simply say that the practical results seem to be the same no matter what form of tuberculin is used. Personally, I prefer Koch's "old" tuberculin or the "bacillin emulsion."

METHOD OF MAKING DILUTIONS.

On account of the minute quantity of tuberculin administered at each dose it is necessary for us to have some accurate method of diluting the crude substance. Many plans have been devised for this purpose, and each has its advocates. For my own use I have devised a method which is easy to carry out and which is easily comprehended, especially by homœopathic practitioners. I copy the following description of the method from an article previously published.*

*See "Hahnemannian Monthly," August, 1910.

Six test tubes of uniform size are placed in a rack. (See Fig. 1). Nine c.c. of a one-half of one per cent. carbolic acid solution are placed in each tube, and the point to which they fill the tube is permanently marked by means of a file. This obviates measuring the 9. c.c. out in a graduate each time the dilutions are made up. I now place in tube No. 1, 1 c.c. of crude tuberculin, and label the tube "1X" dilution. Each c.c. of this dilution contains .1 c.c. of crude tuberculin. The tube is thoroughly agitated, and 1 c.c. of this dilution is placed in tube No. 2, which is then labeled the "2X" dilution. Each c.c. of this dilution contains .01 c.c. of crude tuberculin. I continue this process, taking 1

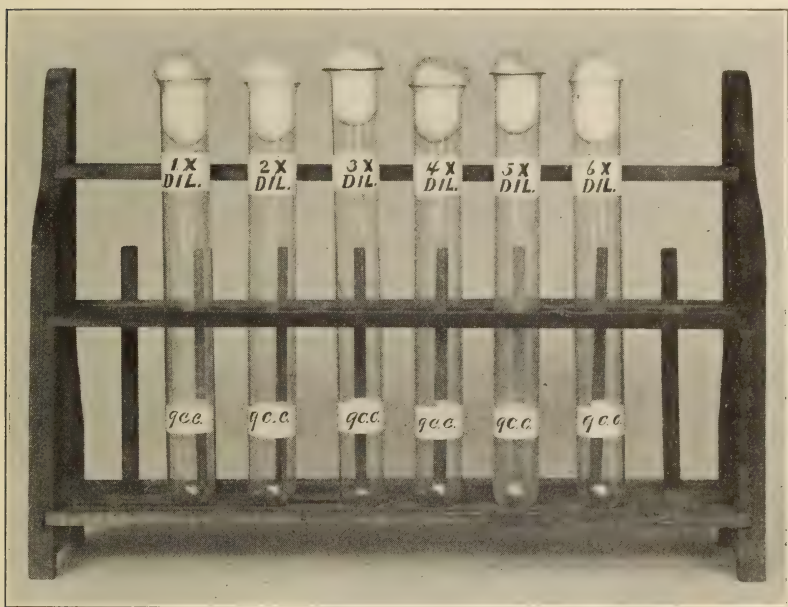


Fig. 1. Rack containing tubes used in diluting tuberculin. The band marked "9 c.c." indicates the point to which the tube is filled with .5% carbolic acid solution prior to adding the tuberculin.

c.c. from each tube and transferring it to the tube next in numerical order, until I reach the 6X dilution, each c.c. of which contains .000001 of a c.c. of the crude tuberculin. This method can be employed no matter what form of tuberculin is used. The tubes should be plugged with sterile cotton. Dilutions should be made fresh every ten days to prevent deterioration.

DOSAGE.

Next to the difficulty of selecting suitable cases, the most important question in connection with tuberculin therapy is that of dosage. It was here that Koch and his followers made their serious mistake, and all clinicians of any experience are agreed that the most satisfactory results are obtained by minute or infinitesimal doses.

I always begin the treatment of my cases with the .1 c.c. of the 5X dilution (.000001 c.c.) of Koch's "old" tuberculin. I then increase the dose .1 c.c. at each subsequent injection until I reach the 3X dilution. When this dose has been reached the increase should not be so rapid, as reactions are likely to occur if the patient is not carefully watched. Instead of increasing .1 c.c. at each injection I increase .05 c.c., giving at the first dose .1 c. c., .15 c.c. at the second dose, .2 c.c. at the third dose, .25 c.c. at the fourth dose, and so on. When the 2X dilution is reached the increase should be slower still, increasing only about .02 c.c. at each injection. The maximum dose of "old" tuberculin is 1 c.c. of the crude substance. In my own practice, however, I seldom increase the dose beyond 1 c.c. of the 2x dilution.

If at any time during the administration of tuberculin a reaction occurs, shown by rise of temperature and aggravation of the general symptoms, I wait until it has entirely subsided, and then begin again with a dose one-tenth as strong as that which caused the reaction, and gradually increase again.

In cases where "new" tuberculin or the "bacillin emulsion" is used, the initial dose should be .1 c.c. of the 3X dilution, which is equivalent to .0001 c.c. of the crude substance. In increasing the dosage the precautions to be observed are the same as in the case of "old" tuberculin.

INTERVAL BETWEEN INJECTIONS.

It is my custom to give two injections a week until the 3X dilution is reached; then give one injection every five days until the 2X dilution is reached; then one injection every week or ten days until the 1X dilution is reached; and then an injection every two weeks.

The patient must keep an accurate record of the temperature four times a day, and it is important to avoid reactions if pos-

sible. Many cases can be carried through to complete cure without any reaction whatever. In addition to the record of the temperature, we should note the effect of the injections upon the cough, expectoration, appetite and general nutrition; and should we be satisfied after a thorough trial that the patient's general condition is aggravated, even though no rise of temperature occurs, we should discontinue the treatment. The rule which I would lay down for the beginner to follow in regard to the matter of the dosage is, if you are not sure as to whether the dose should be increased or not, always take the safe ground and do not increase. It is believed by many observers, not only of the homœopathic school but also of the dominant school, that the best effects are obtained by a dose which is too small to produce any constitutional disturbances.

LENGTH OF TREATMENT.

It requires at least two or three months to judge accurately as to whether the treatment is likely to prove beneficial or not, and it is usually necessary to continue the treatment at least six months before any permanent results can be secured. If the case improves under the treatment I continue it until recovery is complete. This may require a long time, the course of treatment extending from twelve to eighteen months. It is impossible to eliminate the element of time in the treatment of tuberculosis by tuberculin. The success of the treatment depends upon the production of hyperemia about the local seat of the infection with the gradual formation of scar tissue, and upon the formation in the circulation of antibodies produced by the tissues and cells of the body. Both of these processes require time, and an effort to unduly hasten them only defeats its own purpose and ends disastrously for the patient.

CONCLUSIONS.

In this necessarily hasty review of a very important and technical subject I have omitted much that is of interest because of lack of space. In closing allow me to present the following conclusions:

First.—A course of treatment by tuberculin, properly carried out, will arrest or cure fully 80 per cent. of all cases of simple tubercle infection.

Second.—In moderately advanced cases it increases the resistance to the disease and diminishes the probability of complications.

Third.—Localized forms of tuberculosis, such as laryngitis, fistula, bone and joint tuberculosis, are frequently cured by tuberculin treatment.

Fourth.—Cases that have been treated by tuberculin in addition to the ordinary hygienic and dietetic treatment are less liable to suffer from relapse.

Fifth.—An accurate and exact diagnosis of the local and general condition of the patient is an absolute essential before undertaking to apply tuberculin therapy.

Sixth.—Provided the case is properly selected, and the physician regulates the dose carefully in order to avoid reactions, there is no danger attached to the mild method of tuberculin therapy.

THOUGHTS ON BRYONIA.

BY GEO. T. SHOWER, M. D., BALTIMORE, MD.

(Read before the Maryland Homoeopathic Medical Society.)

As the multitude of drugs which make up our *materia medica* is calculated to discourage those who seek to acquire an adequate comprehension of their clinical application, the subject is relieved of its formidable aspect when we consider that the number ordinarily required in everyday practice is comparatively limited.

These latter, for the most part, present such clearly marked characteristics that with a reasonable degree of industry a satisfactory knowledge of their sphere of action may be acquired, and through comparison with the remaining host many more may be brought in outline within our grasp.

It is no slight tribute to the efficacy of the law of *similia* that at an early period of the history of our system, laymen, whose enthusiasm prompted them to study attentively, so far as facilities were afforded them, the properties of these most frequently used remedies, were at least serviceable in heralding the advent of our method of cure, and holding the ground until a larger body of trained practitioners were equipped for occupying the fields the former had partially tilled.

In selecting for consideration bryonia, one of our best known and extensively used remedies, it is obvious that the purpose is not so much to instruct, as to encourage those to whom time has not yet afforded a fair opportunity to fully verify the knowledge they have acquired in the field of materia medica, and to assure them that its continued cultivation is bound to yield more abundant and gratifying harvests, even as nature responds in proportion to the zeal and judgment of him who tills the earth.

The pathological conditions comprehended within the sphere of bryonia are almost limitless; embracing mainly the entire mucous tract, muscular system, and serous structures with their contained organs.

Likewise all seasons demand its service: The effects of winter cold, the relaxation due to the onset of spring, the results of oppressive summer heat with indulgence in vegetable and fruit diet, and the influence of the chilly nights of autumn upon a system thus enervated—all fall within its province. With such a wide range of application, the characteristics which lead to its selection are not numerous, yet so marked, and in many instances unique, that we may in the majority of cases have reason to feel satisfied with our prescription. Yet in such widely extended service, it also comes in contact with numerous other drugs, and thus affords a wide basis for comparison, so serviceable in enlarging the knowledge of our resources.

Many of us may recall one experience while attending lectures upon materia medica. After one such lecture the curative indication of the drug discussed seemed clear to us, but the next lecture on another drug served to divide our allegiance. Only by comparison later such hesitation no longer needed to perplex us.

Thus in giving bryonia such frequent preference upon first impulse, we may subject ourselves to the danger of falling into routine, which has been the source of unnumbered woes to practitioners of our system and to the system itself.

There may come a time in the experience of the physician when the pathological state impresses itself upon him, in a manner, intuitively, without the usual course of investigation, as likewise the particular drug applicable to such a state suggests itself to his mind, as it were, automatically, but it need not be emphasized that such an enviable acquirement is the re-

sult of large experience with diseased conditions and long course of study, and comparison of our medical resources.

Presuming that such attainment will in course of time come to every earnest and conscientious practitioner, it becomes a question whether he who has set out to achieve success in his life's work, is willing to assume the labor which the mastery of such a subject imposes.

As this drug has been selected for purposes of illustration, though many others equally prominent might have served as well, we shall limit ourselves to a few of its prominent features and uses.

Aversion to and aggravation from movement—in almost every diseased condition and in nearly every part of the body.

Vertigo and headache and nausea, which are caused or intensified by the benumbed state of the sensorium; the muscular walls of the chest and the pleura which compel restricted breathing, head, chest and abdomen agonized by the cough, above all rheumatic conditions and the initial stage and frequently the entire course of typhoid, are marked by this intolerance.

Relief from pressure is frequently an outcome of the first-named condition as it serves to secure that quietude which is so necessary.

The stitching pains, most prominent when serous tissues are involved, dryness of the tissues, with scantiness of secretions, we observe from the lips to the rectum, also in the respiratory and urinary tract.

Dry cough with scanty expectoration, so difficult to detach that it may be accompanied with blood, the hard undigested mass in the stomach from deficiency of gastric secretions, all moisture extracted from the stool which is with difficulty expelled as a dry, hard mass; and the scanty urinary discharge.

In referring to this aggravation from motion and the prominence of the drug in rheumatic affections it is scarcely necessary to mention *rhus*, equally serviceable in these conditions and so distinguished by the opposite characteristic, but that it suggests another, *rhododendron*, also worse during rest, and on the approach of bad weather, in which the joints may be enlarged by fibrinous deposits, whereas in *ledum* with its nodosities, although there is no marked resemblance, yet in the peculiar condition of unnatural coldness and yet intolerance of warmth, there is an unique indication for its use.

So also colchicum, marked in stomach and abdomen by the contrasting sensations of violent burning, or icy coldness, we have as in bry., aggravation from motion, rheumatic pains throughout the year, superficial in summer, more deeply seated in winter, shifting rapidly, involvement of the heart which forbids lying on the left side, serving to indicate how the process of comparison may be carried on, and what an extended series of drugs may be brought into relation both through resemblance and contrast. Where there is a paucity of symptoms, we would call attention to the service bell. may render, should the rapid onset and sudden shifting or subsidence of the pains be present, or cham. should numbness alternate with the pains in a sensitive or irascible patient.

In painful chest walls, arn. may be distinguished by its sensitiveness to touch, and ranuculus with inability to lie on the affected side.

In stitching pains kali carb. exceeds bry. as it is not so markedly restricted to serous structures, but prevails elsewhere, and often deserves preference when this character of pains is not dependent on the movement of respiration.

Too often is nux prescribed for constipation when the cause and the attendant conditions present marked distinctions.

Consider the nux patient, prone to prolonged mental exertion, sedentary habits, reluctantly sparing a few moments for a hasty meal, overeating and frequently too freely drinking when the tension is relaxed, rising in the morning ill fitted for the day's duties, resorting to stimulating drugs, these and other irregularities conspiring to set up incoordinate action of the various organs which bring on the ineffectual urging so strongly contrasted with bry., with the dry mass accumulating in the intestines from the scanty secretions and inertia of the rectum.

So the summer diarrhœa suggests ant. crudum, with its thickly coated tongue like bry., but has the alternate states of diarrhœa and constipation, chiefly in the aged, with mucous oozing from the rectum, and proneness to asthmatic conditions.

Hard stools and inertia suggests mainly sil. opium, veratrum album, sepia. Its use in the second stage of inflammation brings it in contrast with many drugs which usher in such disorders, notably aconite marked by excessive restlessness, fer. phos. and gelsemium, with their moderate pulse rate.

In typhoid the closest analogue in the stage of invasion, is gelsemium, which is equally marked by the sore, tired feeling,

a decided lack of energy both mental and physical, but in the latter the appetite is rarely affected.

We fear that with too frequent disregard of the principles by which we profess to be guided baptisia has been prescribed in the early stage of this disease, whereas its pathogenesis most frequently demands its differentiation from arnica. Both have bruised, sore feeling, the bed too hard, deep red face, and stupor.

While in arn. the urine passes involuntarily, and there are suggilations under the skin, in bap. the patient is perplexed in regard to his anatomy and the perspiration, urine and stools are very offensive.

Transactions of the Homoeopathic Medical Society of the State of Pennsylvania

BUREAU OF CLINICAL MEDICINE

M. M. FLEAGLE, M. D., Chairman.

DIPHTHERIA—ITS NATURE AND TREATMENT.

BY M. M. FLEAGLE, M. D., HANOVER, PA.

NOTWITHSTANDING serum-therapy, and other modern scientific discoveries concerning the treatment of disease, there is nothing in the diagnostic vocabulary of the physician which will bring more abject fear to loving parents than this one word—*diphtheria*.

History records few darker pages, than the accounts of this dreaded disease, coming down through the ages, for hundreds of years before the Christian era, on to the present time—its progress marked by the graves of thousands of loved ones, saddened homes, and weeping parents. What wonder then that medical and scientific men have for years tried to discover its true nature, and combat its ravages.

Diphtheria may be defined as an acute, highly contagious, and infectious disease, characterized by the deposit of a fibrinous exudate upon the mucous membranes of the pharynx, nasopharynx, and adjacent structures, associated with more or less

severe constitutional symptoms, and accompanied by evidences of systemic infection, and, for completeness, I may add that the Klebs-Löffler bacillus is always supposed to be present in the role of causative agent.

It must not be forgotten however, that the Klebs-Löffler bacillus often has many other bacteria associated with it, notably—streptococci and staphylococci, and a bacillus almost identical in appearance with the Klebs-Löffler, but not producing the same effects, that is, they are non-virulent, and may be termed pseudo-diphtheria bacilli.

When we consider the fact that the Klebs-Löffler bacillus, of virulent form, is found in the throats of persons who are perfectly healthy, and furthermore, that there is an extreme variation in the intensity of the local action produced by the Klebs-Löffler bacillus—even from the mildest cases with no membrane, to the most malignant cases with a great amount of membrane covering every available space of the upper respiratory tract—we can readily conceive the mental confusion and uncertainty engendered in the mind of the general practitioner, as to the role actually taken by bacilli in the causation of disease, and willingly or unwillingly are forced to the conclusion that after all there must be a more important factor underlying the causes of disease—a factor known to Hahnemann more than a hundred years ago, and which should be considered by every true homœopath to-day (no matter how “scientific” he may be) namely:—deranged or lowered *vitality*, producing a favorable soil, so to speak, by which the patient is rendered susceptible to disease generally.

Diphtheria is no respecter of persons. No age is immune, although nursing infants are less liable to the disease. I have treated cases ranging in age from eighteen months to sixty-seven years. One attack does not necessarily cause immunity from a second attack. It seems as if the disease may be communicated directly from patient to patient, or through a third person, or by pet animals, especially *cats* (a point to be observed in enforcing quarantine), or through children’s toys, school-books, etc. It is highly probable that the majority of epidemics start from an unrecognized or unreported case, in which the symptoms are mild—not confining the child to the house—the child continuing to play with its associates. The majority of these unrecognized cases are probably nasal diphtheria in which the symptoms may be attributed to a “bad cold,” or the

nostrils are believed to be closed by a bad case of "catarrh" Many other means of spreading the disease might be mentioned but time forbids. In direct contrast to this we find those unexplainable conditions (and you have all seen them), in which there may be three or five cases of diphtheria in a family, and yet one child will escape entirely, even though of susceptible age, having the same surroundings, being in the same room with the sick one, and having its food prepared by the mother while giving attention and nursing to the sick children at the same time.

The majority of diphtheria cases seem to occur during the fall and winter months. The period of development is variable—from two to ten days, but usually two or three days. I will not touch upon the pathology of diphtheria as you may find that in any good text-book. The *symptoms* of diphtheria are produced by the action of toxins and will depend largely upon the severity of the case, and the locality of the disease. Probably the great majority of cases are found to involve the pharynx, tonsils, and uvula—then, by extension, the nose and naso-pharyngeal region, or downward to the larynx. I have had cases however, which began in the nose and extended downward, or which began in the larynx and extended upward.

In cases involving the pharynx, tonsils, and uvula, the patient may complain of feeling tired and rather feverish for a day or two; sometimes complaining of a coldness rather than a chill, with some aching or soreness of the muscles throughout the body. With these symptoms is usually associated some soreness of the throat, headache, and a peculiar soreness of the glands and muscles posterior to the sterno-cleido-mastoid muscle; also pain at the base of the brain.

The fever may run from 100 to 104 or 105 degrees Fah., the pulse is usually rapid, but sometimes slow. Examination of the throat will reveal one or both tonsils very much swollen, of an angry red appearance, and at one or more places you see faint outlines of membrane (if you are called in soon enough), as if some one had brushed milk over the tonsil. Within 24-36 hours the membrane will have spread and thickened when it appears grayish-white with a dark red inflammatory border, giving the impression of having been skilfully set *into* the mucous membrane instead of *on* it. Attempts to remove it will cause bleeding, and also more rapid growth of the membrane. The membrane usually spreads by peripheral exten-

sion, but I have seen separate patches develop, and afterward coalesce. The uvula soon becomes swollen like a bag of water, and patches of membrane develop and soon cover it; the glandular structures of the neck become involved, and soon swell enormously. The patient can now neither eat nor talk without great discomfort, and you will have great difficulty in examining the throat. Should you be able to do so, you will find the membrane has changed to a yellowish, or sometimes almost black color, and the odor is horrible—one never forgotten, and one which is peculiar to the disease, and will many times help you to diagnose your case quite early. The discharges from the throat and mouth are quite irritating, making the tongue, lips, and cheeks, red, raw, and sore, sometimes bleeding. Breathing is labored, and the patient has a besotted appearance. It must be remembered that in some of the very worst cases the temperature is comparatively low—99 1-2 degrees Fah., or even subnormal, and the throat symptoms are painless.

The pulse however may be said to practically always indicate the seriousness of the disease. An intermittent pulse at any stage of the disease should always excite suspicion and alarm that all is not well. A thready, rapid pulse, is also a cause for alarm, and if, even in the convalescent stage, there should be an attack of vomiting, with aforesaid pulse, you will almost invariably lose your patient.

Nasal diphtheria I consider more serious than the pharyngeal on account of the more ready absorption of poison into the general system, on account of the glandular structures being more numerous. Extension to the nose will be indicated not only by inability to breathe through the nose, but by the nasal twang, and the acrid, watery discharge from the nostrils making the *alæ nasi*, and the upper lip red and sore, even raw and bleeding. Sometimes you can see the membrane, and there may be profuse bleeding from the nose.

The *laryngeal* form is the most serious of all, in my experience, and requires quick relief, or the patient is doomed. A hoarse, croupy cough not yielding to treatment inside of 12 to 24 hours should excite suspicion. The tendency will be to tighten up, if it be diphtheria, the voice and cough is metallic, and barking, and eventually complete aphonia, with labored breathing; the patient jumping up in bed, all the muscles of respiration taxed to the utmost, face bluish, finger nails purple, cold sweat &c.—you have all seen the picture. You may not

be able to see any membrane in the throat, or at least very little, and yet your patient dies of laryngeal diphtheria. It would seem that after having seen a number of cases of diphtheria one would have no hesitancy in recognizing a case, even without a microscopical examination, but experience teaches differently.

To my mind the mere presence of the Klebs-Löffler bacilli does not always mean diphtheria, but the associated constitutional symptoms must always be considered. Again, I would have serious doubts concerning a case of diphtheria if the inflammation and membrane (or no membranes) were confined strictly to the tonsils, for it is my experience that diphtheritic inflammation naturally tends to spread, no matter where the initial infection may arise. I would also have honest doubts concerning a case, if the membrane can be readily removed without causing any bleeding of the underlying structures, and a close examination will likely determine it not diphtheritic membrane at all, for, in my experience, diphtheritic membrane has an appearance, consistency, and formation peculiar to the disease in question, which an experienced physician will have no difficulty in differentiating. And then the odor! has one ever found an odor in any other acute throat inflammation that approaches or compares with that of diphtheria? I may say that this odor appears very early in the disease.

Note also the besotted expression of the patient, showing a profound toxæmia. The inlaid appearance of the membrane, together with the dark red inflammatory zone at its edge, bleeding on the least attempt at removal, is one of the most important diagnostic signs.

Adenitis is many times a prominent symptom in diphtheria. Fever and pain I have not found reliable diagnostic evidences, as a comparatively mild case may have a great amount of pain and high fever, while a far more serious case may have very little fever (99½-100), and little pain, but yet prove fatal in a short time. Personally I attribute much importance to any soreness of the muscles or glands situated posteriorly to the sterno-cleido-mastoid muscles. Follicular tonsillitis should present no special difficulties in diagnosis to the observing physician. Streptococcic and staphylococcic infection with formation of membranes are far more difficult to differentiate.

Membranous formations associated with other diseases, as.

for instance, scarlatina, can readily be diagnosed by the concomitant symptoms.

I have laid special stress on the ordinary clinical appearance found in the majority of cases of diphtheria, in preference to the microscopical and biological tests, for several reasons; first, the disease is usually quite far advanced (in fact too far) when the physician is called in, so that immediate diagnosis and treatment are imperative, as it might many times prove fatal to wait until a specific or absolute diagnosis is made microscopically or by culture media, before instituting proper treatment. Secondly, probably nine out of every ten physicians are so situated that at least 24 hours would elapse before a positive diagnosis could be given, if dependent upon the finding of Klebs-Löffler bacilli, and during that time the disease will have advanced so that any physician of ordinary experience or observation could easily arrive at the same conclusion. Thirdly, the mere finding of the Klebs-Löffler bacilli is not of itself positive evidence of the existence of the disease for reasons before stated, notwithstanding the assertions of many eminent authorities to the contrary.

The complications of diphtheria are numerous and serious. Probably the most serious are those relating to the heart and nervous system. Diphtheria associated with scarlatina or measles presents an especially unfavorable outlook. There is a retrocession of the eruption, the skin turns dark or purplish, the patient goes into a comatose state, toxæmia is profound, and the patient dies from paralysis of respiration. Post-diphtheritic paralysis of the throat muscles, or of the eye muscles, are quite common complications.

Broncho-pneumonia is a common and often fatal complication.

The prognosis should always be guarded. Complications of any kind except the lighter muscular paralyses, are always dangerous.

Vomiting, occurring late in the disease, almost invariably portends a fatal termination. Heart complications are probably responsible for the majority of deaths from this disease. A rapid, intermittent pulse, or a very slow pulse, are both of bad import. The physician should be especially vigilant to detect any heart weakness whatever, for early recognition ought to mean prompt and proper treatment, with the saving of many

lives. The various sensory and muscular paralyses tend to recover, although such recovery is often very slow.

A mixed infection—streptococcic or staphylococcic—produces usually serious results, in my experience. Be very careful of your prognosis in laryngeal and nasal cases, and especially so in cases complicated with broncho-pneumonia. It is well to remember that the most serious and fatal complications may arise from apparently the mildest forms of this disease. Loss of appetite occurring late in the disease (i. e. after the local throat symptoms have subsided) is many times the earliest noticeable forerunner of some approaching complication, and our prognosis should be guarded accordingly.

TREATMENT.

One's success as a physician depends largely upon *results*, and it surely taxes every energy to get good results in the treatment of diphtheria. Anti-toxin and stimulants constitute practically the whole armamentarium of our allopathic brethren at the present time.

Homœopathic physicians are more fortunate, for many years before the introduction of anti-toxin, homœopathic remedies won many laurels in this disease, having practically as low a death rate, as is now obtained by the use of anti-toxin in the Allopathic school.

Contrast the death rate of from 8 per cent., to 20 per cent. in our school before anti-toxin, with one of 20 per cent. to 50 per cent or even 75 per cent. in the Allopathic school, and you will see what I mean. I believe anti-toxin is a God-send to all schools of medicine, if properly used. I do not believe in the enormous dosage advocated and used by many physicians.

In my experience it is absolutely unnecessary. We must remember that anti-toxin is practically a homœopathic remedy, or more strictly speaking, an isopathic remedy, (or nosode) just as tuberculinum, medorrhinum, syphilinum, pyrogen, variolinum, and other remedies of like class. It has been attenuated or potentized so to speak, by being passed through the body of a healthy animal (the horse), and its curative power measured and standardized. This, then, it seems to me should be the cue in considering its action. Just as a large dose of a homœopathically selected remedy is known to produce baneful effects (medicinal aggravation), by its

over-action, so I believe that anti-toxin will be deleterious to the patient in too large a dosage.

I arrive at these conclusions for several reasons: first, it is scarcely reasonable to believe that any agent which will cause a drop in the patient's temperature from $105\frac{1}{2}$ deg. Fah. to $99\frac{1}{2}$ or 100 deg. Fah., and a drop in the pulse rate from 120 to 130 or more beats per minute to 50 or 60 beats per minute, and all this mighty reaction in a space of 12 to 24 hours—that this agent could do so without a serious reaction (revolution) in the nervous system, and other organs of the body.

Second, in my own personal experience and practice I use from 1000 to 3000 units of anti-toxin as a *curative dose* (not repeated) *with no deaths*, while my fellow practitioners use from 5000 units to 15,000 and even 18,000 units, with a death rate of 30 per cent. or more, during the same epidemic. *Of course I also used a well selected homœopathic remedy in all my cases.* Can it be possible that this caused the difference in the death rate? Personally I believe this to be the case, at least to a great extent, but I also believe it to be safer to avoid terminating the disease by *crisis*, as it were, since there is much less liability to complications, especially heart complications. If these observations can be verified, and they can, why not place the credit where it belongs, to homœopathy, and incidentally save to the state of Pennsylvania, and other states, thousands of dollars now expended in the free distribution of enormous quantities of anti-toxin to be used by physicians whose chief guide in dosage is the ipse dixit of the disinterested (?) manufacturers. Another point to be remembered is, that where there is a mixed infection, streptococci or staphylococci, the anti-toxin will have no effect on the toxins of streptococci or staphylococci, no matter how large the dosage used, and yet it is a fact that these mixed infections produce the most difficult and serious types of the disease under consideration, hence can be no valid excuse for the large dosage employed. The small dose then, 1000 to 3000 units, repeated if necessary, would seem to me to be the true scientific method of using anti-toxin, just as we would prescribe any other remedy homœopathically to get the best results, with the least danger to the patient.

Absolute quiet, in bed, for *two weeks* is my injunction to every patient who receives a dose of anti-toxin. Severe pains and urticarial eruptions, etc., following the injection of anti-toxin have been of common occurrence in my experience, vary-

ing in severity in different patients. I prescribe a light, nutritious diet, and scarcely ever need stimulants of any kind. When I do, I give brandy, strychnia, or sparteine sulphate. Locally I use alcohol and water, equal parts, as a gargle, or preferably a solution of permanganate of potash 1-4 grains to one pint of water, as a spray for nose and throat, and as a gargle. It soon removes the horrible odor, and seems to loosen the membranes. Of homœopathic remedies we have a large number of good ones. Since I am addressing a homœopathic audience, I need not go into special details concerning them. Merc. cyan. is one of the very best, especially when there is much swelling of the glands of the neck, and the disease is of a malignant form; discharges acrid—making the mouth and lips red, sore, and smarting; the membranes are profuse, yellowish, and heavy. *Arum triphyllum*—the lips and cheeks are sore and raw, even bleeding yet the child continually picks its lips. Merc. iod. rub. and flav. are also good remedies. Neither must we forget our old and tried friends—lach., lyc. and lac can., as they have cured many cases, even before the days of anti-toxin.

Bromine and kali bich., also hepar and spongia are of a special value in laryngeal cases. Of these I pin my faith to *bromine*, as it has accomplished wonders. Arsenicum alb., and rhus tox. are excellent remedies in diphtheria especially when associated with much swelling in the throat or outside; each will have its characteristic symptoms present, when indicated. In true cases of diphtheria, I have never been able to accomplish much good with belladonna. It seems not to have the deep zymotic state of diphtheria in its nature. *Ammon. carb.* has proven a great remedy in my hands when there is threatened or actual heart weakness. It seems to raise the patient from the grave, as it were, and often causes a very serious case to run an uneventful course, and incidentally saves one's reputation, as well as many lives.

Apis mel. is a very useful remedy when there is great swelling, with *very little pain or thirst*. *Phytolacca* is a remedy to be thought of also. *Echinacæa*, ars., lach., *crotalus*, *ailanthus*, merc. cyan., and *carbo veg.*, are the principal remedies for the most malignant forms of diphtheria. For post-diphtheritic paralysis gels., rhus tox., caust., *plumbum*, ars. alb. (sensory paralysis), and electricity are the most potent remedies. Hygienic measures, isolation of the patient, and as

much good nourishing food, as the patient will take, are essential to success in the treatment of this disease.

Experience and the latest scientific researches and discoveries prove that eminently successful and brilliant results in the treatment of this disease (and others), are attained only in proportion to the degree of fidelity in approximating the Hahnemannian law of cure.

Let us be true to our colors.

DISCUSSION OF DR. FLEAGLE'S PAPER.

DR. PAXSON: I am very much interested in this subject. In connection with my work as medical inspector of the city of Philadelphia, I have occasion to examine a number of suspected cases of diphtheria that do not present clinical symptoms. These are the cases in which it is necessary to make a culture from the throat in order to make a positive diagnosis. If the bacillus is found, it does not mean that the individual has diphtheria, but that he has the ability to carry the disease and communicate it to others. For example, a case was operated within the past ten days in a hospital for enlargement of the tonsils. The child was sent home, and within the period of incubation, three more cases developed in the home and one died.

As to the treatment of diphtheria, the most important consideration is the dose of antitoxin to be used. It is necessary to use sufficient to overcome the toxemia and this may require one, two, five or even twenty thousand units. After we have given sufficient antitoxin to overcome the toxemia, we should use the homœopathic remedy to combat any other symptom or complication that may exist.

DR. MILLER: I do not understand why it is necessary to complement antitoxin with any other remedy if it is capable of overcoming the toxins. I have been led to believe that the toxin is the destroying agent in diphtheria, and if the destroying agent is overcome, I do not see why there is any necessity for supplementing the antitoxin with the homœopathic remedy. If the antitoxin has no effect in overcoming a mixed infection such as you speak of, then it is necessary to use it only in selected cases and cases that have no mixed infection are capable of being managed by the homœopathic remedy. I have had a number of experiences with antitoxin and have almost come to the conclusion that the cases that cannot be cured by the selected homœopathic remedy cannot be cured at all.

DR. CARMALT: I should like to elaborate one point that the writer called attention to; he warned us to watch for the weak

heart. In our studies of blood pressure, the conclusion has been reached that the weak heart is not due to a weakness of the muscular structure, but to a low blood pressure. This gives us a guide for prescribing heart stimulants. We should use in such cases remedies that produce vaso-motor constriction.

DR. LANE: It seems to me that both the essayist and Dr. Paxson have made clear to this society the proper use of antitoxin. Antitoxin will not overcome a streptococcic infection, which usually comes late. We should, therefore, use antitoxin early.

DR. FLEAGLE: There are a few things I do not understand in the action of antitoxin. One of them is why some physicians give such large doses, say from fifteen to eighteen thousand units. A physician in my own town lost every case that came under his care and asked my advice as to the reason. I told him that I believed he gave too large doses of antitoxin. It is my rule to give a small dose, and I have not had one death.

To be sure, I give the homœopathic remedy in addition, and if the homœopathic remedy can help the action of the antitoxin, I believe it should be given. What I have said is simply from my own experience in diphtheria, and unfortunately, I have had rather a large experience with this disease. While my remarks may not be very scientific, I assure you they are the result of practical observation.

BUREAU OF SURGERY

G. W. HARTMAN, M. D., Chairman

EMPYEMA.

BY W. NELSON HAMMOND, M. D., PHILADELPHIA.

WITHIN the last few years new successful measures have been used in the treatment of empyema and a better understanding of the more unusual symptoms has been gained. Thirty-five years ago thoracic surgery was thought to be impossible, while now, with proper precautions, almost any reasonable operation can be performed upon the lung or pleura. When effusion occurs in the pleura, the lung becomes compressed about its root and the negative pressure which is the normal condition, is changed by fluid, to positive. In re-expanding

the lung touches last the chest wall at a point diagonally furthest from its fixed point; that is in the axillary line about the fifth interspace. This is where the fluid tends and where, in neglected cases it usually ruptures through the chest wall. The reflections of the pleura which separate the lobes of the lung and in which we sometimes find collections of serum, or pus, correspond to a line drawn from the second dorsal vertebra downward and forward to the junction of the sixth costal cartilage. Above and in front of this process, is the upper lobe and below and behind, the lower. On the right side there is a fissure divided by the pleura, extending from the middle of the great fissure to the junction of the fourth costal cartilage. The effusion may first show itself as an area of dullness just below the scapula, in the axillary line between the fifth and eighth ribs and at times in front in the angle made by the cardiac and hepatic dullness. In simple cases of pleurisy, the fluid remains serous throughout unless infected by the exploring needle which can be prevented by strict asepsis. In the cases following upon pleuro pneumonia, most frequently found in children, the fluid is thick, green and purulent and contains fibrinous masses and the diplococcus of pneumonia can be found. When the effusion is dependent upon some septic process either from the lung or abdomen, the pus is thinner and in those cases following upon appendicitis or sub-diaphragmatic abscess in which the infection is from the streptococcus or staphylococcus, is particularly foul; it is carried by the lymphatics through the diaphragm. The tubercular variety is insidious in its onset and may be secondary to a lesion in the lung, but can also be primary and should be suspected when in an adult an effusion occurs without acute symptoms and no apparent cause. The predominance of lymphocytes in the fluid indicates tuberculosis.

In the cases following pleuro pneumonia in children, the symptoms may be masked by pain and rigidity of the abdomen sometimes simulating appendicitis, and cases are on record for which operation was performed and the appendix found to be normal, the real affection being in the chest. This is readily understood when we recall the distribution of the sixth and tenth intercostal nerves; the former terminates at the umbilicus and the latter in the umbilical region. Pain is referred along these nerves to the ends and the muscles become rigid. The disease may commence with vomiting and distension of the

abdomen following a pleuro pneumonia that had apparently subsided, but after some days, the temperature again slowly rises and signs of pleural effusion manifest themselves. The physical signs are first a diminished expansion and diminution of the intercostal space, but later when the fluid has accumulated, there is bulging and separation of the ribs, dullness and resistance are present over the whole side or limited, and vocal fremitus is weak or absent. The breathing is often bronchial, or tubular and the respirations increased. The heart is often pushed over toward the sound side. The pus may be contained between the parietal and visceral layers of the lung and may, in neglected cases, rupture outside about the fifth or sixth interspace, or internally into a bronchus. When the latter occurs, the case may be mistaken for tuberculosis unless a bacteriological examination is made. The value of a thorough exploration by the needle cannot be over estimated in a suspected case. It does no harm even though repeated many times and in acute cases due to pneumococcus it may cure the disease without further interference. However in most cases, the changes are such that simple aspiration will not suffice and continuous drainage must be provided. This can be done successfully when the case is a recent one by an intercostal incision and drainage by Thiersch's method. This consists of aspirating the chest through a large trocar and canula in the seventh or eighth intercostal space; a large fenestrated catheter is passed through the canula and then the canula withdrawn. A piece of rubber tissue with a small slip is passed over the catheter and fastened to the chest wall where the catheter emerges. The rubber tissue is fastened firmly to the chest wall to provide, as much as possible an air tight closure of the wound. To the outer end of the catheter is attached a soft walled drainage tube which fits into a bottle placed below the bed. The soft rubber tube allows the fluid to escape under the internal pleural pressure, but does not allow any air to enter on account of the collapse of the soft walls of the tube during inspiration. This is a very effective apparatus and will cure most of the cases of the metapneumonic type with complete expansion of the lung, if the operation is performed early, before adhesions form and chronic empyema with foul pus and symptoms of sepsis occur, impairing the patient's general condition by intoxication. In the older cases in which the lung is limited in its expansive power by fresh adhesions, a resection of a portion of the seventh or eighth rib just posterior

to the axillary line, is the best treatment. In some of these cases, after the pus is evacuated, the lung will expand; especially if the finger is inserted and the adhesions at the junction of the visceral and parietal pleura are gently separated and the anesthesia stopped and the patient allowed to cough. A careful search for pockets of pus must be made and a thorough drainage secured. In the older cases the lung is often very much collapsed and bound down by adhesions and lies in apposition to the mediastinum which, together with the heart, may be pushed over toward the sound side. Simple measures do not suffice in these cases on account of the long standing inflammatory changes. The lung is a mere strip but maintains its power of expansion if released from the thick leather like pleura.

In these chronic cases of empyema the chief difficulties to overcome are the thick fibrinous covered lung at the bottom a cavity lined with rigid walls, and the necessity of bringing these walls together, or freeing the lung from its thick covering, so that it can expand. The efforts to bring the collapsed lung and the bony walls together, have led to the severe and heroic operations of Estlander and Shede, consisting of multiple resection of the ribs and intercostal muscles, letting the skin flap fall in to meet the pleura. These operations make no provision for releasing the lung from the thickened pleura and allowing it to reach the bony wall by expansion, a measure more rational, and less mutilating, and attended with less shock and trauma. These patients are already exhausted from the long absorption of septic material and are very poor risks for severe surgical interference. The operation of freeing the lung from its tough covering was performed by DeLorme and Fowler about the same time. DeLorme made a flap extending from the third to the sixth rib. He turned the flap back and found the lung in the costo-vertebral angle in a cavity extending from the diaphragm to the apex of the lung. Upon incising the membrane, the lung began to expand and after excising the thickened pleura the lung expanded and filled the cavity. Fowler obtained the same result while operating upon a long standing case with a sinus surrounded by a great mass of cicatricial tissue. After excising this down to the lung, he noted that expansion occurred and steadily progressed and in a month's time, the chest cavity was completely filled. The operation is attended with less shock than the more extreme measure and should be used

in preference. Even if at the first operation, it is not possible to remove all the fibrous membrane, some expansion will be gained which will increase and in subsequent operations, more of the lung can be released when the patient has improved and become a better risk. A single long incision can be used or multiple ones, but the best method is to strip the compressed lung by incision and blunt dissection, controlling the bleeding, which is sometimes considerable, by tamponade. It is necessary to resect about $1\frac{1}{2}$ inches of from four to six ribs, to carry out this decortication and the incision in the pleura should extend over the whole area of the compressed lung and any adhesions to the diaphragm must be separated. It is best not to irrigate these cavities, but depend upon drainage. This applies to all varieties. In the early cases you can often feel the lung expanding after rib resection and evacuation of the fluid. These cases have done well even when Thiersch's dressing has not been applied. The thick gauze compress used, preventing to some extent, the entrance of air.

When operating, the patient should either lie on his face, back, or with the chest extended over the edge of the table; never on the sound side as has been the rule. The sound lung is doing practically all of the respiration and is often encroached upon by the change in position of the heart and mediastinum; each inspiration aggravates this and sometimes causes cyanosis and several deaths on the operating table have been reported due to interference with respiration while in a faulty position. Intra tracheal insufflation is valuable at the time of operation to fully expand the lung just as the wound is closed.

I believe that the anesthetic is largely responsible for the shock and mortality in the grave cases and think that nitrous oxide gas should be used. I have recently used this anesthetic for abdominal work, and when given by one experienced, the patient can well be kept under the anesthetic for an hour or more. There is no accumulative action from laughing gas and shock is reduced to a minimum. The patient reacts directly after the operation and besides, it produces a certain amount of positive pressure and helps to expand the lung. Beck's bismuth paste is of much value in some of these cases, especially where there is an old suppurating sinus lined with granulations. The sterile paste, consisting of bismuth subnitrate 1-3 and vaseline 2-3, should be warmed until it flows and can then be drawn into

the syringe. When hard enough to form, which can be determined by ejecting a little from the syringe, the cavity is filled and an antiseptic dressing applied. This will sometimes suffice to close the sinus, but if not, the injection can be repeated about once a week, changing the dressing when necessary. In very large cavities the patient should be watched for bismuth poisoning and if it should occur, which is rarely so, the cavity can be emptied by warm olive oil.

The following case illustrates its successful use following operation: E. B., age 2 years, 7 months, had empyema on the right side, of several weeks' duration. Temperature would run up to 101° in the evening. The child was listless and very weak and anemic. The right side was slightly bulging and dull upon percussion well up to the axilla. A portion of the seventh rib was resected and a large amount of pus evacuated. The lung did not expand at the time, but on account of the child's general condition, nothing more was done. A large drainage tube was inserted into the cavity. The temperature fell rapidly to normal and the child became stronger. Methods were used to expand the lung, but with very little result. A sinus formed and from time to time pus would become pocketed and the pulse and temperature would rise. The sinus persisted for a year. At the end of that time he was again brought to see me and a second operation performed. About $1\frac{1}{2}$ inches of the sixth and seventh ribs were resected and the cavity examined. The pleura was found to be thickened and was preventing the lung from expanding. With the finger the adhesions were gently but firmly broken up around the edges of the cavity and the lung began to expand. The wound did well, but left a small sinus leading up toward the angle of the scapula. This was filled with bismuth paste and in ten days' time had completely healed. A radiograph of the boy's chest shows the lung to be fully expanded after being compressed for a year.

The after treatment is important. The patient should be gotten up and about as soon as possible. Nothing tends to expand the lung so well as exercise and fresh air.

In summarizing, the points that I want particularly to emphasize are as follows:

1. Anesthesia. Nitrous oxide gas is the best.
2. Abdominal symptoms sometimes predominate and simulate appendicitis; especially in children.
3. Interlobar type. In a suspected case where the fluid is

not found under the parietal pleura, look for it between the lobes.

4. Position while operating; patients have died while lying on and compressing the sound side. The best position is on the abdomen, back, or extended over the table.

5. Intra tracheal insufflation is valuable to help expand the lung when extensive operations are performed.

6. Drainage. Thiersch's method best; tube should not be put too near the diaphragm.

7. Bismuth paste will heal many of the cases with old granulating sinuses.

8. No irrigation.

9. Lung expansion will take place if lung is released from its adhesions.

10. Early interference if you would save the patient a long period of invalidism and a more serious mutilating operation.

TOBACCO DYSPNOEA.—Reckitt (*Lancet*) says this symptom may become alarming in unconscious abuse of tobacco; mere tachycardia is very common, but in one case, in a man fifty-four years, the dyspnoea was urgent and continuous. Reckitt found it was due to the use of a pipe ten years old, which was saturated with empyreumatic products (the author says nicotine). Turkish cigarettes were substituted for the pipe and a mixture of potassium bicarbonate and tincture of nux vomica prescribed with good results. Reckitt concludes that looking at this case from a physiological standpoint, the action of nicotine on the heart, it seems pretty clear that the depressant effect of the poison caused a sort of air hunger, the respiratory centre being overstimulated in consequence of the want of tone in the first beat of the heart. It also seemed evident that the smoking of such a foul pipe, saturated as it was with concentrated nicotine and tobacco juices of ten years' standing, was the means of introducing into the system such a continuous amount of the poison daily, that it indirectly, through its action on the heart, affected respiration, causing inspiratory dyspnoea. The change from the use of a foul pipe to cigarettes seemed clearly to benefit the patient, although, of course, the rational treatment would have been total withdrawal of tobacco. It is also to be borne in mind that as regards the use of tobacco, or rather the habitual use of it, idiosyncrasy may play a part, inasmuch as one person may find even a foul pipe to have less effect in the way described than cigarettes or other forms.—*N. Y. Med. Journal.*

EDITORIAL

THE VON PIRQUET TEST FOR TUBERCULOSIS IN PRACTICE.

SINCE the von Pirquet test has come into such general use among medical men as a routine measure in the diagnosis of tuberculosis, it is important that careful consideration should be given to the interpretation of this test and whether it is a trustworthy method of diagnosis in this disease.

The features about the von Pirquet test that have made it so popular among medical practitioners are undoubtedly the ease and safety with which it can be performed. The technic consists merely in cleansing the skin of the forearm with alcohol or ether and then, by means of a scalpel or scarifier, scratching through the skin, over a small area, down to the lymph spaces. It is not necessary or desirable to produce bleeding, but merely an oozing of serum. Into two of the scarified areas a drop of "old" tuberculin is rubbed, while the third is allowed to dry without inoculation. This latter area serves as a control on the other two. If the reaction is positive a distinct area of hyperemia and a small papule will appear around the spots inoculated with the tuberculin, within twenty-four or forty-eight hours. This persists a few days and then gradually fades away. If the reaction is negative all three of the scarified areas will present the same appearance and after the slight hyperemia resulting from the traumatism has faded away the skin returns to its normal condition.

Like every other diagnostic measure the von Pirquet test was first introduced as a ready and infallible method of diagnosing tuberculosis in any of its forms. Clinicians soon found, very much to their surprise, that the vast majority of all adults gave a positive reaction and that many cases of well advanced tuberculosis failed to react. This led many to condemn the test as being entirely useless and of no specific value in the diagnosis in tuberculosis. The results of post-mortem examinations, however, revealed the fact that tuberculosis, in an active or latent form, was quite as common in adults as the von Pirquet

test had indicated. For example, Hamburger found tuberculosis post mortem in 77 per cent. of all children between the ages of 11 and 14, and Nægeli found evidences of tuberculous infection in 97 per cent. of the bodies of all adults coming to the post-mortem table.

These findings not only went far to establish the accuracy of the von Pirquet test, but also explained why it is so frequently positive in apparently healthy adults. The failure of the test to be positive in certain advanced cases of tuberculosis is in entire accord with our knowledge regarding the action of tuberculin in such cases, the failure to react being due to the fact that the body has exhausted its power to form antibodies and therefore there is an absence of reaction to tuberculin in any form.

Admitting then the comparative accuracy of the cutaneous test as advocated by von Pirquet, the question naturally arises, if practically every adult responds positively, is the test of any practical value in medical practice? Our personal experience, and in fact the experience of von Pirquet himself as well, leads us to say that *a positive reaction in an adult is no indication whatever of clinical tuberculosis*. At most it merely indicates that at sometime or other the patient had an infection by the tubercle bacillus, but gives us no information whatever as to whether such infection has anything to do with the patient's present condition. We are inclined to attach some value to a negative reaction when it has been carefully performed two or three times by a person experienced in the use of the test, provided the case is evidently not an advanced one. The finding of positive signs of tuberculosis in a comparatively early stage, in a number of cases in which the von Pirquet had proved negative leads us to state, however, that even a negative test cannot be accepted as conclusive evidence of the absence of the disease.

The von Pirquet test finds its greatest field of usefulness in the diagnosis of tuberculosis in childhood and especially during the first five years of life. Latent or healed tuberculosis is rare in early childhood and the presence of a positive reaction is strong presumptive evidence of the existence of the disease in children under five. As the child grows older the importance of the test as a positive method of diagnosis steadily decreases and in children over ten or twelve years of age its significance is practically the same as in adults. Unless associated with other and more conclusive evidences of active tubercular infection we are

not justified in pronouncing older children to be actively tuberculous on the presence of a positive von Pirquet test alone.

G. H. W.

THE NOBEL PRIZE IN MEDICINE.

It has been announced that the Nobel Prize in medicine has been awarded this year to Dr. Allvar Gullstrand, Professor of Ophthalmology in the University of Upsala, in recognition of his research work in connection with the dioptrics of the eye. Professor Gullstrand has devised an anastigmatic lens for the use of patients whose lenses have been extracted. The new lens affords a much wider field of vision than the ones formerly employed.

Alfred Nobel, who died in France in 1896, bequeathed a fortune of nine million dollars, the interest of which was to be used for prizes to be given yearly for the greatest advances in chemistry, physics, medicine, literature, and for the propagation of peace. In 1901 the first prizes were awarded, von Behring, of Germany, receiving the prize in medicine. Since that time the prizes in medicine have been awarded to the following physicians: 1902, Ronald Ross, of England; 1903, N. R. Finsen, of Denmark; 1904, J. P. Pawloff, of Russia; 1905, Robert Koch, of Germany; 1906, C. Golzi, of Italy, and Ramon y Cajal of Spain; 1907, C. L. A. Laveran, of France; 1908, J. Metchnikoff, of France, and P. Ehrlich, of Germany; 1909, E. Th. Kocher, of Switzerland; 1910, A. Kossel, of Germany; and 1911, Allvar Gullstrand, of Sweden.

G. H. W.

THE STATUS OF MIDWIVES IN PENNSYLVANIA.

In the last session of the Legislature of Pennsylvania there was passed an act which purported to regulate the practice of midwifery in that State. This act, (No. 734) was signed by Governor Tener on June 14th, and consequently became a law. Under the terms of the new law it was unlawful for any one to practice midwifery in this State except a duly licensed physician, or a duly licensed midwife. Those who had practiced midwifery

in this State for a period of ten years or over were entitled to a license when their applications were accompanied by the affidavits of five freeholders, at least two of whom must be licensed practicing physicians.

Applicants who had practiced in the State for a period of less than ten years could only legally qualify by presenting a diploma from an institution teaching midwifery, that would be recognized by the Medical Council, or by passing an examination held by persons regularly appointed by the Medical Council to conduct the same.

Section 10 of the act requires any midwife to report to a local physician, or the local health authorities any inflammation of the eye or eyelid: failure to do the same being visited by possible fines or imprisonment.

The only authority vested with the power to issue license to midwives was the Medical Council, and as the Act of June 5th, 1911, which provides for a Bureau of Medical Education and Licensure goes into effect on the first day of January, 1912, it repeals the act which establishes the Medical Council. It follows that after January 1st, 1912, there will be no Medical Council to license practitioners of midwifery, and no other body is authorized by law to perform that duty.

However, the decision of the Attorney General was to the effect that it was incumbent upon the Medical Council to perform the duties imposed by the act until the Council went out of existence; and at a meeting of the Medical Council held upon the 10th of November, Dr. Nathan C. Schaeffer, and Dr. Samuel Dixon were empowered to examine the credentials of those who had already applied under the terms of the act; and to those that presented the legal credentials a license would be issued. Twenty-eight midwives have presented formal application to the Medical Council, all of them alleging a practice in this State of ten years or over, and from this number will be the only ones who can bear a special license of a midwife in this State for the next two years.

After the first of January, 1912, the law affecting the practice of midwifery in this State will be null and void from the failure to provide any one to execute it, and we will be reduced to the same conditions we were in previous to the passage of the act.

D. P. M.

GLEANINGS

BRIEF ON THE SALVARSAN TREATMENT OF SYPHILIS.—By G. Frank Lydston, M. D., Chicago.—When the first furore of excitement over “606” was at its height, I expressed the opinion that the newspaper syphilologists and worshippers of strange therapeutical gods, like the stage queen in Hamlet, protested too much. Further, I prophesied that when the commercial enthusiasm calmed down and cold experience assumed sway of professional judgment, dioxydiamidoarsenobenzol would take its legitimate place in the therapeutics of syphilis, i. e., that of a valuable adjuvant in the treatment of the disease. I have, thus far, had no occasion to change my views. Whether salvarsan will eventually prove to be like potassium iodide, a symptomatic rather than a curative remedy, is open to question. Its action on the spirochætæ justifies optimism, but it will require many years to settle this question. Tertiary manifestations occurring half a century or so after an apparent cure by mercury are not reassuring, and the test of time is as fair for the one drug as for the other. Commercialism or ignorance alone—or both—underlies the wild, dogmatic statements of the miraculous curative properties of salvarsan. This applies especially to those who glibly assert that a single treatment with salvarsan is equal to many months’ treatment with mercury—a statement which may or may not be true, but which those who make it cannot support by anything more tangible than guesswork and commercial enthusiasm.

The day of salvarsan is yet young. The experience of years is the balance in which to weigh accurately therapeutical speculation. I might remark, in passing, that numerous remedies and methods have been “touted” as marvels of efficacy. Iodide of potassium was once believed to be a magician’s wand; sarsaparilla was a gift of the gods, and McDade’s mixture the fairy godmother of all good little syphilitics. And then came “near salvarsan,” sodium cacodylate, another useful adjuvant but a remedy the specific therapeutical properties of which in syphilis are “all in your eye.”

Having from the first leaned toward the side of conservatism and having waited until I felt that my own experience warranted me in forming conclusions, possibly what I now have to say of salvarsan comes with better grace than it would if I had received with open arms the new drug as the remedy that was destined to wipe syphilis off the map, as per the magazine and newspaper schedules.

From careful observation I am convinced of the great value of salvarsan in meeting the following indications:

First—Prompt removal of severe genital lesions, thus lessening, first the danger of infecting others; second, the danger of detection; third, local discomfort; fourth, the danger of serious local complications of a destructive character.

Second—The prevention or prompt removal of disfiguring skin lesions.

Third—Precocious or malignant syphilis and obstinate destructive bone and cartilage lesions, especially of the face and nose.

Fourth—Cases resistant to or intolerant of mercury. In this class of cases salvarsan is often of inestimable service.

Fifth—Early nerve and brain and all visceral lesions, with the exception of renal syphilis, in which I consider salvarsan especially dangerous. In late lesions of the nervous system its use may occasionally be justifiable.

Sixth—Cases of syphilitic cachexia or anæmia, which often consist of a combination of overtreatment and syphilis.

Seventh—Severe and rapidly destructive lesions of the throat and obstinate lesions of the tongue.

Eighth—Syphilis involving the organs of special sense, excepting lesions involving the retina.

Ninth—Early tabes or exceptionally in late—not terminal—cases in the hope of relieving severe pain or involvement of the sphincters.

Tenth—Infantile syphilis.

Increasing experience has shown that the drug is not promising in most cases of locomotor ataxia. The fact remains, however, that occasional early cases are apparently benefited by it.—*N. Y. Medical Journal*.

CROTALIN TREATMENT OF EPILEPSY.—Dr. Ralph H. Spangler (*N. Y. Med. Jour.*, Sept. 9, 1911) reports in tabulated form thirty-six cases treated with rattlesnake venom (crotalin). He is convinced that the treatment, if used with intelligence and a careful technique, is of great value in modifying the severity of the attacks, progressively lengthening the intervals between the seizures and produces a most desirable effect on the apprehensive mental state so characteristic of the unfortunate sufferer from epilepsy. The form of epilepsy most influenced by the venom is the so-called idiopathic or genuine epilepsy, for which there is no ascertainable cause.

The general health in all cases improved noticeably. The thirty-six cases tabulated have been under observation and treatment long enough to show the undoubted beneficial influence. A brief summary showing the variety of cases tabulated is interesting. The ages of the patients ranged from five to sixty-two years. They include twenty-one males and fifteen females, who had been subjected to epileptic seizures for periods varying from six months to twenty-five years before the venom treatment was started. Included in the thirty-six cases are twenty-four patients who were subject to only major attacks, *grand mal*; eleven who were subject to both major and minor attacks, and one in whom only the *petit-mal* form was present. In nine out of the thirty-six cases the convulsions occurred in series. A family history of epilepsy was present in nine of these cases; alcoholism in four; insanity in three, and in the remaining twenty cases of the series the family history was negative, so far as hereditary influences are usually considered. It is interesting to note in the previous personal history of the cases possible factors which may have had a predisposing aetiological influence. Four cases were preceded by convulsions in infancy, two by chorea, three by scarlet fever and in one case epileptic attacks developed while the eruption of measles was present.

Two cases followed attacks of typhoid fever, and one case followed a heat prostration. There was a history of a fall in four of the cases, and of a severe fright in three. Menstrual irregularity was associated with the convulsions in four patients out of the series. In the remaining thirteen cases nothing of interest or importance could be elicited in regard to the previous history of the patient. The most satisfactory solution consists of the dried, crystalline scales, from the venom of *Crotalus horridus*, dissolved in sterile water, to which has been added a few drops of trikresol for its preservative and antiseptic effect. This sterile, antiseptic solution is put in sterilized ampoules, holding one cubic centimetre each and sealed. Each ampoule contains one dose, which is made as strong as desired by the physician, i. e., each one cubic centimetre of solution represents 1-200, 1-100, 1-75 of a grain of the venom. It is best to start with a dose of 1-200 grain and gradually increase the strength as indicated. The idiosyncrasy is judged by the local reaction at the site of the injection and the effect it has on the character and frequency of the convulsions. The value of the treatment bears a direct relation to the presence of a satisfactory local reaction which consists of swelling, erythema and cellulitis. The author has had several cases that required 1-25 grain before sufficient local disturbance was obtained favorably to influence the attacks. The site of injection usually chosen is the forearm, alternately from left to right.

It is best to use an all-glass aseptic hypodermic syringe and a platino-iridium needle about one and a half inches in length. The needle should be well introduced into the muscles (intramuscular) at an angle of about sixty degrees and the contents of the syringe expelled slowly.

The frequency of administration varies with the character of the attacks in an individual and depends upon the length of time the local reaction lasts. It seems best to wait about two days after the swelling and cellulitis have subsided before giving another injection. It is best to withdraw all other medication and allow a general mixed diet, only instructing the patient to avoid such articles of food as were found to produce gastrointestinal disturbance.—*Medical Times*.

TREATMENT OF DIABETES MELLITUS.—A. J. Hodgson, M. D., in the Jour. Amer. Medical Assoc., states that it should be impressed on the patient that a "cure" of this disease is not possible in the sense in which he understands a "cure," viz., that after the glycosuria has been overcome he may go back to his old habits of diet. He should be told that after his apparent recovery, continued care in eating is essential to his continued health. As well might a consumptive in whom the tuberculous process has been arrested by careful treatment expect to go back to foul air, insufficient light and lack of nourishing food and remain well, as a diabetic to keep his urine sugar-free while violating the very diatetic rules the disregard of which brought on his trouble.

OBJECTIVE POINTS IN TREATMENT.

In treating the class of diabetics with which this paper deals there are four objects to be kept in view:

1. To free as nearly as possible the blood and other tissues from sugar; to do this it is necessary—
2. To find the individual patient's tolerance for carbohydrate and if possible to increase that tolerance;
3. To find a diet that will furnish the necessary calories without, at the same time, increasing the sugar intake; and
4. To prevent, by dietetic or other measures, the constipation with which the majority of these patients suffer and which increases the toxic condition.

The first thing to impress on the patient is the fact that this disease—in the class of cases under consideration—is one that possibly has been years in developing and that it is useless and hopeless for him to expect to obtain any relief in a short time. The changes which a long-outraged system has undergone are such as cannot be remedied in a week or a month. In diabetes, more than in almost any other disease (unless it is tuberculosis), the help and cooperation of the patient is absolutely essential to successful treatment.

QUANTITY OF FOOD IMPORTANT.

One essential must be made plain to the diabetic and that is the quantity of food eaten is just as important as the kind of food. Too often the patient suffering with diabetes is told to purchase gluten flour or gluten breads (most of which are frauds), and no limitation is put on the amount of these products that may be eaten. It is a fact that many mild cases of diabetes will show a diminution of sugar in the urine almost to the vanishing point when the patient is merely compelled to eat a very moderate ordinary diet. That is to say an antidiabetic diet is not always necessary to reduce the glycosuria; a reduction in the amount of ordinary food will sometimes accomplish the same end. So much for general directions.

For drinking, copious draughts of some mildly alkaline water are desirable. The water should have sufficient salts in solution to increase slightly its natural diuretic effect. Distilled water should not be used, at least for any length of time.

The diet should, at first, be restricted as nearly as possible to proteids and fats, unless the patient shows signs of acidosis or impending coma, in which cases carbohydrates must be cautiously given. It is very essential that the food of the diabetic be well cooked, so as to tax to the smallest degree the weak digestive system. As the glucose diminishes, fresh vegetables may be added to the dietary, but of such quantity and kind as not to exceed 4 per cent. carbohydrate. Again it should be stated that the quantity of all food—even if it is carbohydrate-free—must be greatly restricted.

SEVERE CASES.

To go back to the patient: If, after two weeks of strict antidiabetic treatment the sugar does not disappear, the patient should be put to bed and placed on a diet consisting of one raw egg and 2 ounces of olive oil, three times or even four times a day, still continuing the free use of mildly alkaline drinking waters. Should the urine show the presence of diacetic acid, the oil must be reduced in quantity and small amounts of

carbohydrates given—the patient, meantime, being kept in bed. Sometimes, in cases in which the system is threatened with an overwhelming acidosis, the temporary administration of small quantities of sodium bicarbonate may be tried, although I have seldom seen any good effect from it. This should be given as nearly as possible midway between meals, so as to cause the smallest degree of interference with digestion. As, however, it will cause some digestive disturbance no matter how carefully administered, its administration should not continue for any length of time.

After getting the patient to the point where the urine is sugar-free, small quantities of carbohydrates should be cautiously added to the dietary. Just as the presence of sugar in the blood establishes a vicious circle and causes the system to become still less able to “burn up” the sugar, so the absence of sugar gives the organism a greater tolerance for this necessary food. The carbohydrate should be added gradually, first at one meal only each day, and that meal preferably breakfast, as metabolism seems more active at that time. As systemic tolerance is increased, the starchy foods may be added to other meals until the point is reached where sugar appears in the urine; when this occurs, all starches should be withdrawn for a day or two and then gradually given again to a point just below that which has been shown to be dangerous.

In brief, then, the following points are essential to the successful treatment of diabetes mellitus:

1. To impress on the patient that after his apparent recovery continued care in eating is essential to continued health.
2. To dispense, as a general thing, with such drugs as codein and arsenic and to make the patient rely practically entirely on the diet and hygiene.
3. To insist on the restriction of the quantity of food just as much as of the kind.
4. To overcome constipation by the use of castor oil and olive oil or by the use of a mixture of these two with glycerin.
5. To insist that the food must be thoroughly masticated.
6. To restrict carbohydrates at the outset to the smallest possible amount consistent with safety.
7. To add starches gradually in but one form rather than in several until the point of tolerance has been reached.
8. To eliminate from the dietary those articles of food that have been found to be difficult of digestion, even in health, though their starch-content may not be objectionable for a diabetic.
9. Above all, to impress the patient with the fact that his disease is essentially the result of vicious dietetic habits and that it is useless for him to expect any favorable results so long as the habit is persisted in.

TUBERCULIN TREATMENT OF UROGENITAL TUBERCULOSIS.—Bachrach and Necker come to the following conclusions: 1. Operable cases of renal tuberculosis are not suited to tuberculin treatment. 2. Early cases, in which bacilli are positively present without suppuration or impairment of the functions of the kidneys, are suited to the treatment with tuberculin until the appearance of an indication for nephrectomy. 3. The tuberculin treatment seems to be worthy of recommendation in cases of renal tuber-

culosis in which nephrectomy has been performed, when morbid foci have been left in the urogenital tract or in other organs. 4. The effect of the tuberculin is shown in an improvement of the general condition and in an increase of weight. 5. An influence exerted upon the morbid focus in the sense of a cure has not yet been demonstrated. 6. Tuberculin treatment may be without reaction and may therefore be carried out without injury to the organism. 7. Inoperable cases can scarcely be influenced by tuberculin, but in the absence of other therapeutic means it may be tried.—*Weiner Klin. Woch.*

CARDIAC THERAPEUTICS.—Price concludes from a study of the modern graphic methods of observing the heart that there is a great variability in the action of digitalis or its allies in different patients, not due to any differences in the drugs themselves, but to differences in the nature of the lesions from which the patients suffer. Cases generally respond unless pyrexia is present, when very little or no result may be expected, or in the senile heart with extensive fibrous degeneration of the heart muscle. As a rule, there is a relapse to the former condition in about a week after the drug is stopped. The indication, then, is to find out what dose will best maintain the improvement without producing any unpleasant symptoms. Marked improvement very rarely follows in cases in which there is not auricular fibrillation. If improvement occurs it can usually be maintained without continuing the drug. In two cases of tachycardia, arising from an abnormal source, digitalis caused the heart to revert to a normal rhythm, after inducing fibrillation of the auricle. It is of the utmost importance that one should be able to recognize auricular fibrillation clinically by the following signs: 1. In a great majority of cases the pulse is continuously irregular, and this irregularity is of a disorderly character; 2, in mitral stenosis the auriculosystolic murmur disappears; if a diastolic bruit was present it persists; 3, the absence of a normal auricular wave in a tracing of the jugular vein; 4, an electrocardiogram of the heart shows no sign of the normal auricular systole.—*British Medical Journal.*

POSTURAL AID IN THE TREATMENT OF INTRAABDOMINAL SUPPURATION.—The now fairly general employment of Fowler's position in the treatment of diffuse and "general" peritonitis has been undoubtedly one of the three important features of the modern management of these conditions that has so greatly reduced their mortality—the other two being first, the "quick in, quick out" operation (rapid attack on the source of the infection—e.g., appendix, perforation of bowel, and rapid toilet of the pus-bearing areas with as little handling and exposure as possible), and, second, the Murphy rectal infusion and delayed feeding.

So important, indeed, does the Fowler posture appear to be in discouraging the migration of the pyogenic organisms and the spread of the pus towards the upper zone of the abdomen that its employment should not be reserved for the postoperative period, but should be instituted as soon as the diagnosis is made. Mere elevation of the head of the bed may accomplish the desired result, but it is far better to prop the patient up in an almost sitting position.

The mistake is often made, however, of continuing the Fowler position

after it has ceased to be useful, that is to say, after the inflammatory process has localized itself. Gravity having limited the suppuration to the lower abdomen should now be invoked to coax the pus from the pocket (often the pelvis) in which it has been encouraged to remain. And thus, a few days after operation, when the peritonitic storm has subsided, the most rapid drainage of the pus becomes an important problem. It is then that a reversal of the patient's position from Fowler's to Trendelenburg's, or to the lateral horizontal, or to the horizontal posture prone on the belly for several hours a day, will often go a long way toward hastening the cure. Indeed, in many instances the subsequently necessary gravity drainage through the rectum or vagina might have been obviated by the timely and intelligent employment of gravity drainage through the original abdominal incision.—Editorial *American Journal of Surgery*.

WASSERMANN REACTION NOT A GUIDE FOR TREATMENT OF SYPHILIS.—Plehn (Berliner klinische Wochenschrift) has had the serum of 200 patients at the Urban general repeatedly examined with the five various technics for the complement deviation test, in order to ascertain the diagnostic reliability of the Wassermann reaction. The vials with the serum were only numbered and the serologist knew nothing of the patients yielding the serum, not even whether they had a history of syphilis or had taken treatment. The results confirm the possibility that syphilis may become permanently cured with no, or very slight treatment. Among the forty-two giving a positive Wassermann reaction repeatedly, nine had reached an advanced age without ever having had any manifestations of their syphilis after the very first, which was also the case in fourteen others who had received what would be regarded as very inadequate treatment; some in this group gave a positive, others a negative reaction. Neisser has stated this year that the spontaneous recovery of syphilis is an extremely rare occurrence, but Naunyn has asserted that it generally dies out of itself, in most cases, even without treatment—although he is the last one to rely on this—and the experiences related here by Plehn demonstrate that a clinical cure with little if any treatment occurs oftener than is generally recognized. This fact explains the positive reactions obtained in so many persons who are supposed to be entirely free from a history of syphilis. On the other hand, the Wassermann reaction may become negative while florid manifestations of syphilis persist or develop afterward. The fact that the reaction has become negative does not therefore signify that the patient is actually cured; neither is it always possible, even with the most energetic treatment, to transform a positive into a negative reaction or prevent tardy syphilis of the nervous system especially the parasyphilitic affections with and without a positive reaction. Plehn adds that the Wassermann reaction gives no information as to the infectiousness of the case. The reaction may persist positive for decades while the patient is free from the slightest clinical symptom; thus a positive reaction is no proof of the syphilitic nature of clinical manifestations developing during this period, which may or may not be of a syphilitic nature. On the other hand, a negative reaction is no proof that they are not syphilitic. Plehn reiterates that the Wassermann reaction is only one symptom of syphilis, and, like other symptoms, it may be present or not, and it may be encoun-

tered in conditions other than syphilis, as with neoplasms and lead colic, Plehm also has had occasion to deplore the depression produced by knowledge of a positive reaction in persons clinically normal. One young man recently committed suicide on this account and necropsy failed to disclose the slightest trace of syphilis. A syphilitic with a negative reaction may yet speedily die of brain syphilis, while others with positive reactions may live to 77 and over without symptoms. He does not dispute the value of the test in certain dubious conditions, but regards the interpretation of the test as a matter involving great responsibility.—*Charlotte Med. Jour.*

TREATMENT OF LEUCHORRHEA.—The use of cleansing irrigations in the treatment of leucorrhea due to cervical catarrh is absolutely wrong, according to W. Liepmann. Irrigations will never cleanse the vagina properly, but will carry the secretion into the upper portion of the vault and will also soften and injure the epithelium and in this way render it more suitable for the further development of germs. A more rational and effective treatment is the following: A speculum is introduced and the vagina carefully dried from above downward with cotton sponges on an applicator. The entire mucous membrane is then carefully dusted with about a teaspoonful of some suitable dusting powder. The applications are made on the first, second, fourth, sixth, eighth, tenth, fourteenth and eighteenth day. Irrigations are strictly forbidden and the patients should not even bathe during the first eight days. About 90 per cent. will be cured in this way; where the cervical catarrh is more obstinate the cervical mucous membrane is cauterized on the eighth day or a curettage is performed. When the patients are discharged, they are instructed to insufflate the vagina with a suitable spray and to avoid all douches.—*Therap. Monatschft.*

INFLAMMATORY DISEASES OF THE UTERINE ADNEXA AND THEIR OPERATIVE TREATMENT.—Thaler has reviewed the abundant clinical material of Schauta's clinic amounting to 6000 cases, 800 of which were operated. Of the indication for operating he says it appears that in the majority of these cases the induced anatomical changes are capable of resolution, which, although rather symptomatic than objective, will lead to a subjective cure and permanent health. This result may be favored by various conservative therapeutic means. Furthermore, aside from those cases in which there are great collections of pus, we cannot find an indication for operating in the anatomical changes themselves, especially when we consider the exceedingly rare occurrence of complications in the spontaneous course of the disease. In view of this fact it becomes our duty to make use of all aids in conservative treatment. The indication for operating arises when the latter fails. In about 10 per cent. of cases careful conservative treatment proved useless, and operation was indicated.

If conservative treatment has failed the ideal operation is extirpation. The operation should be by the vaginal route if an especial virulence of the pus may be feared, and if the radical treatment can at all be carried out by this route. The abdominal route is preferable when many adhesions exist, and when conditions about the appendix seem to complicate the case. Drainage through the vagina materially favors the good re-

sults of the operation. The abdominal route is preferable also in simple cases of chronic inflammation, chronic pelveo-peritonitis and fixed malpositions of the uterus. Conservative operating should not be done if drainage is called for, nor when genital hemorrhage is a pronounced symptom.—*Arch. f. Gyn.* Vol. 93-413.

THEODORE J. GRAMM, M. D.

PITUITRIN IN PROTRACTED LABOR.—A study of the action of the extract of the pituitary body has shown that pronounced contractions are induced in certain organs composed of smooth muscle fibre. This effect as observed upon animals was manifested especially upon the uterus of pregnant and lactating during pregnancy and lactation and upon the bladder. These observations suggested to Hofbauer its use as a means of exciting and stimulating uterine contractions. He applied it in subcutaneous doses of 0.6 to 1.7, in six cases where after dilatation of the cervix and with a proper position of the presenting head, the labor pains seemed to lag and even cease for hours. Within a few minutes after the hypodermic injection the pains returned and the labor was speedily terminated. The uterine activity excited by the pituitrin was regular and by no means tetanic in character. Another effect observed in these cases was the ability to urinate spontaneously where for a long time there had been a complete inability to do so.—*Zentralbl. f. Gyn.* 1911, 137.

THEODORE J. GRAMM, M. D.

THE OPERATIVE TREATMENT OF DIFFUSE PURULENT PERITONITIS.—Noetzel refers to 449 cases treated in which there was a favorable result in 62 per cent. The treatment consisted in opening the abdomen, freely opening up the collections of pus, radical removal of the cause, thorough irrigation of the abdominal cavity with warm salt solution, drainage of the deep parts of the pelvis and elevation of the head, and exact closure of the abdominal wound down to the point of drainage. Elevation of the pelvis must be strictly avoided. Eventration must be avoided, but if unavoidable may be done. A rubber tube drain is used, the gauze tampon drain being reserved for phlegmenous processes in the pelvis. The induction of peristalsis is only possible in the after treatment, when the intestines are no longer paralyzed by the peritonitis. Therefore the emptying of the gut by enterostomy is of no use, since it is only effective in partial intestinal paresis, and in such cases it is unnecessary. As a last resort multiple puncture with the needle may remove some of the gases and thus prevent pressure upon the heart and lungs. The hot air treatment of the abdomen has been beneficial in some cases. Physostigmin is useful when the inflammatory condition is improving. Washing out of the stomach and normal saline enemata and venous infusion should be given early.—*Zentralbl. f. Gyn.* 1911, 221.

THEODORE J. GRAMM, M. D.

OCULAR COMPLICATIONS OF LEPROSY.—The paper is based on the author's experience in the San Lazaro Hospital of Havana. All leprosy patients sooner or later lose their eyelashes and eyebrows. Enucleation and necrosis of the palpebral tissues often result in ectropion or entropion. In

some cases observed, obstruction of the lacrimal passages has occurred, with occasional destruction of the puncta lacrimeliana. There is often leproma of the conjunctiva. The most frequent ocular lesions are keratitis and iritis. The former begins usually by extension from the sclera on to one quadrant of the cornea, gradually involves the whole cornea, causes great pain and finally results in complete leproma. The excessive pain of leproma iritis does not settle down into a state of chronic irritation, but continues to be acute over a long period. Affection of the retina and choroid are uncommon. In advanced cases the lines may become opaque and atrophied.—Dr. F. M. Fernandez, *Havana Annals de Ophthalmolog.*

WILLIAM SPENCER, M. D.

A HELPFUL HINT IN PROBING SEVERE STRICTURES OF THE LACRIMAL APPARATUS.—In over thirty years the author has not incised a lacrimal point, and yet he has been able to cure a large number of cases of tearing, dacryocystitis, and lacrymal fistula, some of them of many years' standing often in a few weeks' time, by passing probes through the uncut puncta. "Too many tear sacs are mutilated," only after exhausting conservative treatment should surgical procedure be resorted to, and these, unfortunately, fail to bring relief in the majority of cases. Probing is sometimes very difficult on account of the extreme stricture of the internal mouth of the canaliculus or of the nasal duct. Sometimes fungus excrescences of the sac make the finding of the upper end of the nasal duct almost impossible, or the probe passes through a carious spot in the bony wall of the sac, giving rise to the much feared "false passage."

Very small probes are very apt to produce these false passages. He starts with his No. 6, which is about the same caliber as Bowman's No. 3. His probes have a blunt olive point, which informs the operator much more of a resistance encountered and passed than a cylindrical probe would.

Even in simple stenosis cases, when water forced through the lacrimal point can be made to reappear in the nose, a well oiled probe is passed with difficulty because the walls of the canal strip the lubricant from the probe. To overcome this he has made use of a principle used in mechanics, namely, the oil bath, or automatic lubrication. Three or four drops of sterile olive oil, the best lubricant for this purpose, are forced through the lacrimal point under pressure sufficient to make it reappear in the nose. The effect of this injection of oil is often surprising: strictures that seemed impassable now allow the probe to pass with surprising freedom and without bruising the walls of the canal, and probes one or two numbers thicker can be passed, the pain of the probing being much lessened or entirely suppressed.—Dr. Armaignae, *Bordeaux, La Clinique Ophthalmol.*

WILLIAM SPENCER, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

JUGLANS CINERA.—By A. L. Blackwood, M. D., Chicago, Ill.—This agent acts upon the liver, duodenum, small intestines and colon producing an increased activity of the bile forming function of the liver, and increasing the secretion from the glands of the intestinal tract. Large doses produce large bilious evacuations from the bowels with severe intestinal pain and colic, similar to that produced by *Iris versicolor*. These evacuations from the bowels are attended with a sensation of burning in the anus, and are followed by tenesmus. The odor of the stools is similar to that of onions. It produces pain in both hypochondriac regions, with stitching pain in the region of the liver that extends to the right shoulder and under the right scapulae. The hepatic area is sensitive under palpation. Under its action the blood becomes darker in character and more fluid than is normal.

It produces an occipital headache in which the pains are sharp and shooting in character, and are associated with tenderness of the liver, catarrhal condition of the duodenum and jaundice. There are sharp pains under the right shoulder blade which might remind one of *Chelidonium* or *Bryonia*. The patient often awakes (about 3 A. M.) with a severe occipital headache. There are bilious stools of a yellow-greenish color, their passage is attended with a sensation of burning in the anus and is followed by tenesmus.

Under its influence various forms of skin lesions develop, which vary in character from scaly to pustular, and from papulae to bullae. Associated with the skin lesion is usually a disordered digestion.

An infusion from the outer covering of the green nut was used as a wash, and was considered a specific in cases of ring worm and kindred lesions by the laity when I was a boy. It was also taken internally in cases of dysentery.

It should be remembered in cases of occipital headaches when the pain appears during the morning (3 A. M.), is severe and cutting in character. It is partially relieved after arising. It is most frequent in those with enlarged sensitive livers. The pain may be present during the forenoon when it is usually referred to the right side of the head, and the right temple. There may be present a sensation as though the head was enlarged. The headache may be attended with frequent urination. The passing of the urine is accompanied with a sensation of burning in the urethra. Occasionally there is a sensation of sinking in the stomach complained of attending the headache. The tongue has a yellow coating.

There are pains complained of from the neck to the coccyx, and over the back. The muscles of the neck may be rigid and feel lame. There is pain between the scapulae, and under the right scapulae, especially the vertebral border, which renders breathing difficult. There is pain in the lumbar vertebrae, and at the right sacro-iliac symphysis. Many of these symptoms are associated with gastric and hepatic derangement in which the bowels are constipated, or there is an alternate diarrhoea and constipation. When the diarrhoea is present the stools are copious, frequent and bilious in character. When the constipation is present the stools consist of hard, dark brown balls. In some cases the first part of the stool is constipated, while the latter part is diarrhoeic and of a greenish-yellow color. In this class of cases the remedy regulates the flow of bile and other secretions, corrects the irregular condition of the bowels, and relieves the pains and other toxic conditions.

It should be studied in cases of retro-sternal pain that is attended with a sensation as of suffocation. This is observed when exercising and compels the patient to stand still. It is associated with hepatic and gastric symptoms, and led to its use in a case of angina pectoris, which is speedily relieved.

It is of service in cholelithiasis, and in cholecystitis, and the attending jaundice, when there are sharp cutting pains in the region of the gall bladder that appear independent of movements, and are not relieved by restricting the movements of the parts. The pains extend to, and are felt under the right scapula. In those cases there is frequently an occipital headache, which awakens the patient early in the morning. He is obliged to get out of bed and move about to find a degree of relief from the pain.

It has an extensive use in the disease of the skin, which may consist of an exanthematous eruption having the appearance of scarlet fever, or it may resemble eczema simplex. It is attended with an itching and pricking when heated by over-exertion. There is itching complained of, which is now here and now there.

The remedy should be carefully studied in cases of erythema nodosum when there are numerous and extensive patches of eruptions on the body and extremities that are attended with a general constitutional disturbance. It is frequently indicated in ecthyma when the eruption is general and almost confluent. The pustules are large and when dry the crusts are of a dark brown color. The constitutional symptoms are pronounced so that the subject cannot lie or sit with any comfort. The appetite is poor, there is diarrhoea and the patient is worried about his condition. In cases of chronic eczema the remedy should be studied when it is of an impetiginous variety. The secretions are semi-purulent and icherous in character, and there is pronounced soreness and intolerable itching and smarting complained of that awakes the patient from sleep. It has had an extensive use in all forms of skin diseases, and it has been curative in rodent ulcer. In many of these cases there are dyspeptic symptoms complained of, and other general characteristics of the remedy are present.—*Medical Century.*

CIMICIFUGA.—By Walter Sands Mills, A. B., M. D.—*Cimicifuga*, or *Actea racemosa*, is a plant indigenous to the eastern part of the United States from Maine to Florida. It grows in shaded mountainous places. The root is used for medicinal purposes.

Hale, in his new remedies, gives an extensive account of *cimicifuga*. According to his story *cimicifuga* was made known to white people by the Indians of New England. The Eclectic school of medicine first adopted it in their system. Dr. H. D. Paine introduced it to the homœopathic profession in a proving published in the *North American Journal of Homœopathy*, Vol. III., p. 207.

Cimicifuga is one of the most valuable remedies in the *materia medica*. The old school text books give an account of it.

According to Bartholow its general action lies between that of *Ergot* and of *Digitalis*. It increases the activity of unstriated muscular fibre only in less degree than *Ergot*. It slows the pulse and increases the muscular action of the heart only in less degree than *digitalis*.

The homœopathic uses of *cimicifuga* are many. It is extremely valuable in various nervous conditions, in certain rheumatic conditions, and in diseases of women.

The headache of *cimicifuga* is usually associated with aches and pains elsewhere. For instance, it will promptly relieve headache that runs from the head down the neck, as in stiff neck. It is more of a rheumatic headache, in fact.

Another headache calling for *Cimicifuga* is one where the eyeballs are extremely sensitive, and are the seat of the pain. The headache will extend from the eyes to the top of the head.

Cimicifuga is the remedy for the indefinite nervousness of the menopause. The patient don't know just what she wants to do. She thinks she is sick, but moving about don't make her any worse.

In the stiff neck, in lumbago, and in muscular rheumatism wherever located *cimicifuga* is probably the best remedy we have.

We find these muscular pains in grip. For example:

Case I.—Man, aged 33. Feeling badly for a day or two. March 21 he was unable to get out of bed. He ached all over. Had a frontal headache. Nose and eyes ran. Coughed a little. Temperature 102 F. *Cimicifuga* 1x dilution was given in water. March 22 patient up and dressed. Feels a little light headed, but no aches or pains. The patient required other remedies to cure up his cough, but he ached no more.

Case II.—Woman, aged 27. December 19, complained of feeling sore all over, even across chest. Headache, eyeballs sore. Throat aches. *Cimicifuga* 1x dilution was given in water. December 20, aches and soreness gone. Again other remedies were resorted to cure the cough.

I have used *Cimicifuga* with satisfaction in an occasional case of rheumatic fever, where the muscular soreness was a feature. It is also the remedy if the nervous system is much upset with the rheumatism.

Cimicifuga will be of service in chorea sometimes.

In delirium tremens, drop doses of *cimicifuga* tincture is of service if the patient's hallucinations run to visions of rats and mice, and if he has bad dreams.

Cimicifuga appeared to be of help in one case of labor where the pains were severe, but the parts were dry and the patient extremely nervous. The pains ran around the hips and seemed to be accomplishing nothing.

In another case of threatened abortion at the end of four and a half months *Cimicifuga* seemed to prevent trouble.

The patient was a married woman, aged 23. Mother of one child nineteen months old. She was first seen July 19, 1899. She gave a history of one miscarriage in June, 1896, at six weeks; another January, 1899, at two months. Her last menstruation ended March 6, 1899. Patient had been troubled with headaches for a week, and insomnia for three weeks. At the date when first seen she complained of headache, dizziness and ringing in ears. Pain low down in the back. Pains from hips to feet. Has pains in chest and coughs so that she cannot lie down. Cough also hurts in the abdomen. Cannot sleep. Examination showed the lungs and heart to be normal. Vaginal examination showed the cervix to be soft and dilated. Uterus large and movable. Tubes and ovaries sensitive, and some leucorrhœa. The patient was given *Cimicifuga* third, in water, every two hours.

July 20, patient still dizzy, legs feel better, July 21, better in every way, sleeping. July 22, pains confined to right leg and left side of face. July 24, very much better, pains all gone.

Patient made an uninterrupted recovery.

A study of the pathogenesis of *Cimicifuga* shows many of the above symptoms.—*Medical Century*.

CONIUM MACULATUM.—Dr. C. E. Hetherington, Piqua, O., summarized this remedy at the end of his paper as follows:

"Sweats day or night. As soon as one sleeps or even when closing the eyes. Giddiness and debility especially of arms, the legs on walking, staggering as if drunken. Tremulous weakness after every stool. Sexual desire without erection. Emissions from slight sexual excitement. Soreness and swelling of breast preceding menses. Indicated also in painless induration of glands. To be thought of as a remedy for the secondary results of traumatism where induration results.

"I have had a very positive cure of a peculiar ear condition characterized by the over-production of wax of a dark reddish-brown color. Compare it carefully with phosphorus in vertigo, contrast it with phosphoric acid in night sweats. Study it in secondary debilities before giving strychnine, sulphate, phosphate or arsenite.

"In writing the keynote indicated I chanced upon the following acrostic:

"Celibacy.

"Old age.

"Night cough, sweat and aggravation.

"Induration of glands, mammæ, etc.

"Urinary atony.

"Mental weakness, morose and excitable."—*Gleanings Seventh Annual Session Ohio Homoeopathic Society*.

